# TA-E77ES/E77ESD

# **SERVICE MANUAL**

E Model

US Model Canadian Model AEP Model UK Model



Photo: TA-E77ESD

#### **SPECIFICATIONS**

#### **AUDIO SPECIFICATIONS**

Item	Condition			Data
Total harmonic distortion	At rated 20 output	)Hz – 20	kHz	0.001%
Intermodulation (M)distortion 60Hz:7kHz = 4:1	at rated ou	ıtput		0.001%
Residual noise	Network A			Less than 10µV
Frequency response	PHONO M	IM		RIAA equalization curve ±0.2dB
	TUNER, C VIDEO 1, 2 TAPE 1, 2, ADAPTOR	2, 3 AUX,	3Hz – 300kHz <sup>+0</sup> <sub>-3</sub> dB	
Input sensitivity	PHONO	мс	3 ohms	0.17mV, 100 ohms
		·	40 ohms	0.17mV, 1k ohm
		ММ		2.5mV, 50k ohms
	TUNER, C TAPE 1, 2, ADAPTOR	VIDEO -	1, 2, 3	150mV, 50k ohms
Maximum input	PHONO	мс		9mV
capability (1kHz)	(1 kHz, THD 0.003%	ММ		150mV
S/N (network)	PHONO	MC (0.5	imV)	83dB(A)
		MM (5r	95dB(A)	
	TUNER, C TAPE 1, 2, ADAPTOR	VIDEO	105dB (A)	

Item	Condition	Data		
Output voltage impedance	REC OUT 1, 2, VIDEO OUT, ADAPTOR OUT, DAT OUT (TA-E77ESD)	150mV, 1k ohm		
	HEADPHONES	45 milliwatts (at 8 ohms) Accepts low and high impedance headphones.		
	PRE OUT	1.5V, 47 ohms G-AEP model : 1.5V 20 <b>O</b> ohms		
Tone controls	BASS, at 100Hz	+3.5 dB (turnover freq. 200Hz) +7 dB (turnover freq. 400Hz		
	TREBLE, at 10kHz	+7 -7.5 dB (turnover freq. 3kHz) ±3.5 dB (turnover freq. 5kHz)		
SUBSONIC filter	<del>_</del>	6 dB/octave attenuation below 15Hz		

- Continued on Page 2 -







#### **VIDEO SPECIFICATIONS**

INPUT	VIDEO 1, 2, 3	Voltage 1Vp-p Impedance 75 ohms
OUTPUT	VIDEO 1, 2 MONITOR TV	Voltage 1Vp-p Impedance 75 ohms
S VIDEO IN (TA-E77ESD only) Luminance signal	VIDEO 1, 2	Voltage 1Vp-p Impedance 75 ohms
Chroma signal	VIDEO 1, 2	Voltage 0.286Vp-p Impedance 75 ohms
S VIDEO OUT (TA-E77ESD only) Luminance signal	VIDEO 1 MONITOR	Voltage 1Vp-p Impedance 75 ohms
Chroma signal	VIDEO 1 MONITOR	Voltage 0.286Vp-p Impedance 75 ohms

#### **DIGITAL SPECIFICATIONS (TA-E77ESD only)**

#### Converter section

Digital input (phono jacks)	Input level (sensitivity) 0.5 Vp-p ±20%	Impedance 75 ohms
Digital output	Output level (voltage) 0.5Vp-p ±20%	Impedance 75 ohms The input signal comes unprocessed to the digital output terminals via a buffer, only when the TA-E77ESD is operating.

Number of channels

2 (stereo)

Demodulation (D/A conversion)

16-bit linear

Frequency response

5Hz - 20kHz ±0.5dB

(Input digital signal sampling freq. 44.1kHz)

Harmonic distortion

Less than 0.004% at 1kHz

(Input digital signal sampling freq. 44.1kHz

16-bit operation)

Dynamic range More than 95dB

(Input digital signal sampling freq. 44.1kHz

16-bit operation)

Channel separation

More than 90dB

#### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK

ON THE SCHEMATIC DIAGRAMS AND IN THE
PARTS LIST ARE CRITICAL TO SAFE OPERATION.
REPLACE THESE COMPONENTS WITH SONY PARTS
WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS
MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

#### ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET UNE MARQUE A SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

#### **GENERAL**

System Low-noise FET high gain, NFB

type equalizer amplifier, low noise FET, Double-stage differential, push-pull output, flat amplifier passive type direct tone control

Power requirements

US, Canadian model: 120V AC, 60Hz

AEP, UK, E model: 110-120V or 220-240V AC

adjustable, 50/60Hz 220-240V AC, 50/60Hz

G-AEP model: 220-

Power consumption: 30W

US, Canadian, E model: 1 switched, 400W max.

1 unswitched, 400W max.

AEP, UK, G-AEP model: 1 switched, 400W max.

Dimensions

AC outlets

Weight

Approx.  $470 \times 130 \times 370$ mm (w/h/d)

 $(18^{1}/_{2} \times 5^{1}/_{4} \times 14^{1}/_{2} \text{ inches})$ 

incl, projecting parts and controls

Approx. 12.1kg (26lb 11oz): TA-E77ES

Approx. 13kg (28lb 11oz): TA-EE7ESD

Supplied accessory

US, Canadian model: Programmable commander RM-E7 (1),

Digital signal cord (1), Connecting cord (1), Sony New Super batteries (4), Index sheet

AEP, UK, G-AEP model: Remote commander RM-177D (1),

Digital signal cord (1), Connecting cord (1),

Sony New Super batteries (2)

E model: Remote commander RM-177 (1), Connecting

cord (1), Sony New Super batteries (2)

#### **FEATURES**

#### **Higher sound quality**

Sony performed numerous experiments and trials to determine the best chassis structure for an amplifier capable of top quality sound reproduction with superb dynamics, response and presence. The results provided the basis for the TA-E77ES/E77ESD's chassis design. The chassis, named "Gibraltar", is solid as a rock to avoid internal vibrations caused by power transformers, power transistors, and other amplifier components and stress from the outside caused by floor vibration from speakers, home appliances, and other sources. Additionally, the chassis is made of non-magnetic and non-conducting materials and this eliminates magnetic hysterisis distortion caused by transformers, capacitors, transistors, etc.

#### Abundant functions

- Audio input selectors control 7 audio and 3 video signals.
- Input source selection can be remotely controlled by the supplied remote commander.
- TA-E77ESD provides digital input and output jacks.
   These deliver excellent sound reproduction with digital audio equipment.

For the model in USA and Canada only, a programmable commander is supplied. This can remotely control almost any Sony audio and video equipment. Further, it can "read" and "store" the functions of another remote commander using an infrared ray transmitter, not only those made by Sony but those of other manufacturers as well. With this single commander, you can control your audio and video equipment regardless of their manufacturers.

#### SAFETY CHECK-OUT

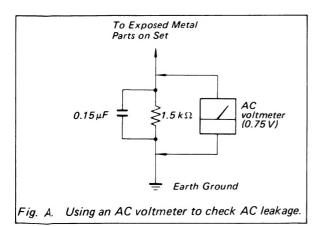
After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

#### **LEAKAGE TEST**

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

- A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
- A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
- 3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)



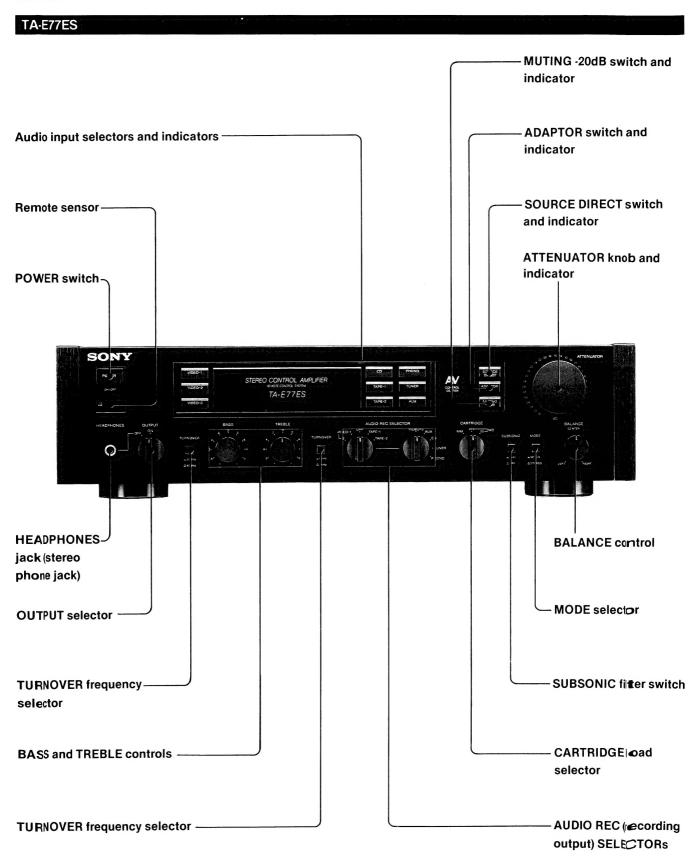
#### TABLE OF CONTENTS

<u>Title</u>	Description	Page
	Specifications	1
	Features	2
	Safety Check-out (US Model)	
	Troubleshooting guide	
	Function of Controls (TA-E77ES)	5
	Function of Controls (TA-E77ESD)	6
	Overall connection diagram	7
	Function of Controls (RM-E7)	8
	Function of Controls (RM-177/177D)	10
	How to use learning function (RM-E7)	11
	Disassembly and Assembly for	
	Switch Section	12
Section 1.	Adjustment	13
Section 2.	Diagrams	
2-1.	Mounting Diagram (1)	
	D/A Converter Section (TA-E77ESD)	15
2-2.	Schematic Diagram (1)	
	D/A Converter Section (TA-E77ESD)	17
2-3.	Mounting Diagram (2)	
	Control AMP Section	22
2-4.	Schematic Diagram (2)	
	Control AMP Section	27
Section 3.	Exploded Views and Parts List	33
Section 4.	Electrical Parts List	37

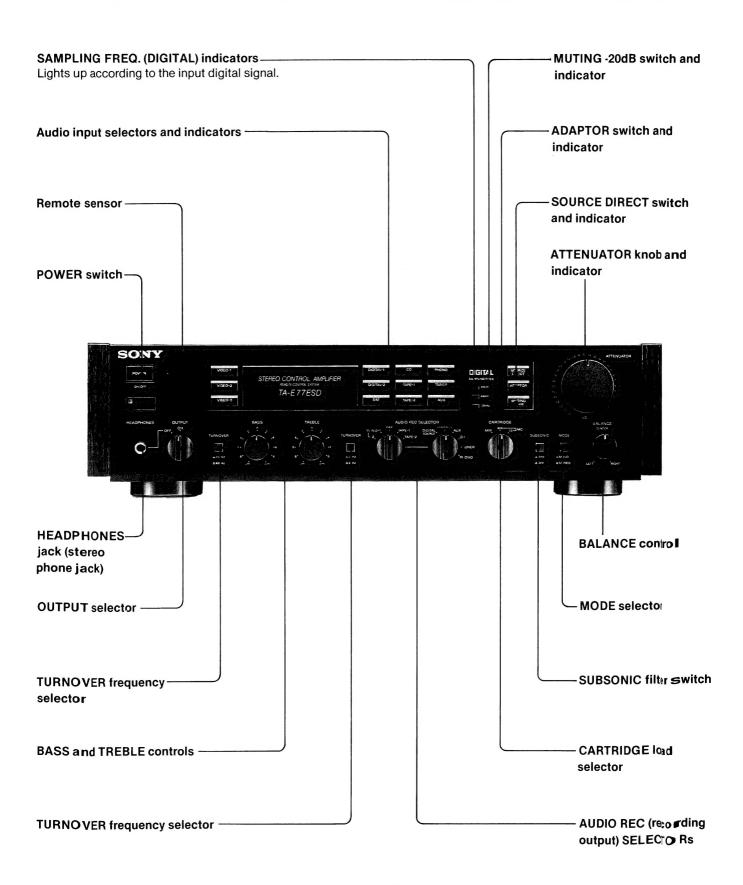
# Troubleshooting guide

Trouble	Cause/Remedy
No audio	Faulty setting of OUTPUT selector. Faulty connection • Connect the power amplifier and other equipments correctly. The audio input selector is not correctly set. The ADAPTOR switch is set to on when the ADAPTOR jacks are not used. The equipment connected to the ADAPTOR jacks is not turned on. • Set the ADAPTOR switch to off or turn on the equipment.
No audio from one channel or unbalanced left and right sound level	Incorrect setting of the BALANCE control
No recording	The AUDIO REC SELECTORs are not correctly set.  • Set the selectors correctly.  For selection on right AUDIO REC SELECTOR, set the left selector to the right most position.
Low volume	The MUTIG switch is depressed.  • Release the switch. Incorrect setting of the CARTRIDGE load selector.
Lack of bass sound or obscure instrument position	Mal-setting of sound quality controls  • Adjust the controls for sound quality.  Faulty setting of the CARTRIDGE load selector.
Severe hum or noise	Noise from TV, etc.  • Keep the connecting cords away from transformers or motors, TV and fluorescent lights.  Faulty connection of turntable system.  • Ground the turntable system
Remote control operation cannot be performed.	The batteries in the commander are exhausted. • Replace them with new ones.

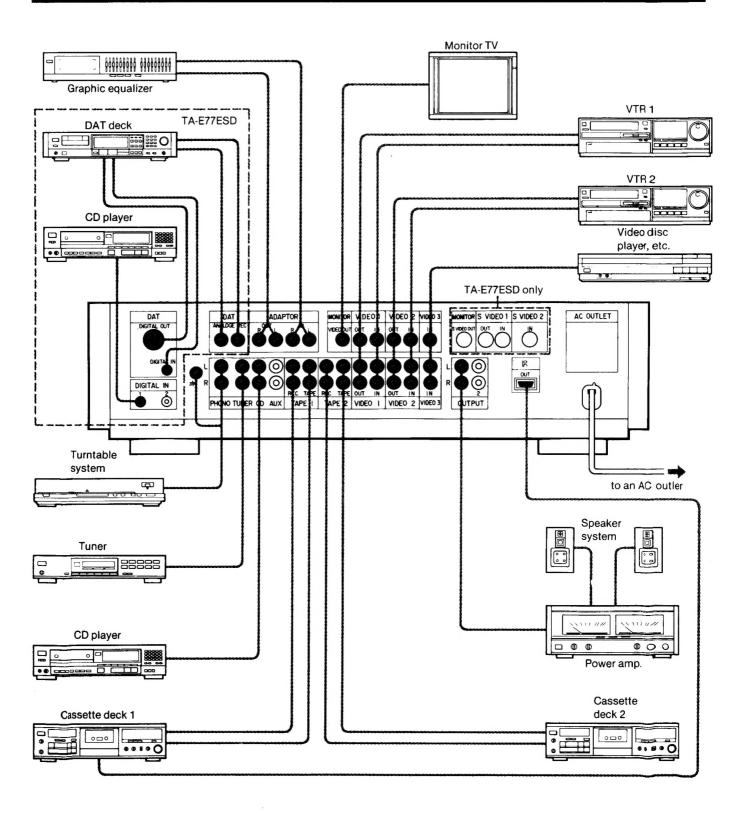
#### **FUNCTION OF CONTROLS**



# TA-E77ESD



# Overall connection diagram



# Programmable commander RM-E7 14 15 1 16 2 17 21 4 18 5 3 44 | 19 6 22 7 20 10 11 . 8 12 13 9

### 1 AUDIO POWER ON/OFF switch

Turns the power of the amplifier on or off.

### 2 SYSTEM POWER OFF switch

Turns off the power of the amplifier, TV, VTR1 or VTR2.

#### 3 VIDEO POWER ON/OFF switch

TV: Turns the power of the TV on or off.

VTR1: Turns the power of the VTR 1 on or off.

VTR2: Turns the power of the VTR 2 on or off.

#### 4 PHONO buttons

▼ : Lifts or lowers the tonearm.

>: Starts record playing

: Stops record playing

#### 5 CD butons

#### |**◄◄/▶**|: AMS\*

➤: Starts playing

Stops playing

\*AMS = Automatic Music Sensor

#### 6 DAT buttons

◄◄/►►: Leftward and rightward fast winding

▶: Forward play

: Stop

HI AMS

: Pause

O: Record

### 7 TAPE button

: Leftward fast winding

➤: Forward play

>: Rightward fast winding

: Stop

11: Pause

O: Record muting

: Recording

#### 8 Program source selectors

# 9 ADAPTOR switch

10 SOURCE DIRECT switch

#### 11 MUTING switch

#### 12 ATTENUATOR buttons

#### 13 TUNER PRESET buttons

- +: Selects higher preset number.
- -: Selects lower preset number.

#### 14 Indicators

**LEARNED** 

Transmit indicator

READY

#### 15 LEARN/USER/SONY selector

Selects the function of the FREE buttons or the other buttons

SONY: To operates this commander normally.

LEARN: To memorize the function of another remote commander on one of the FREE buttons.

USER: To recall the memorized function on FREE buttons.

#### 16 FM-AM/TV/VTR selector

Selects the unit to be controlled; tuner, TV or VTR.

#### 17 VTR selector

Selects the command mode.

If your VTR has a command mode selector, set this selector to the same position as that set on the VTR. If your VTR does not have one, set to 1. If a Sony 8mm VTR is connected, set to 2.

#### 18 VTR operation buttons

- : Recording
- : Pause
- : Stop
- : Rewind
- ➤: Play
- : Fast forward

CH +: For higher numbered channels

CH -: For lower numbered channels

TV/VIDEO: Selects the input signal of the VTR: TV or video.

#### 19 TUNER FM-AM/TV/VTR channel buttons

10-key preset channel buttons: Memorize or recall the preset channels for the unit determined by the setting of the FM-AM/TV/VTR selector.

ENTER: Completes the operation for memory presetting of radio, TV or VTR channels.

#### 20 TV buttons

MTS(Multichannel TV Sound): Receives a multichannel TV sound program when the FM-AM/TV/VTR selector is set to

TV/VTR: Selects the TV signal input.

CH +: Selects a higher TV channel.

CH -: Selects lower TV channel.

VOL +: Increases the sound level.

VOL – : Decreases the sound level.

DISPLAY: Displays the selected signal source on the TV screen.

#### 21 VDP (Video disc player) buttons

I Chapter search

➤: Play

11: Pause

**◄**: Reverse play

: Fast play

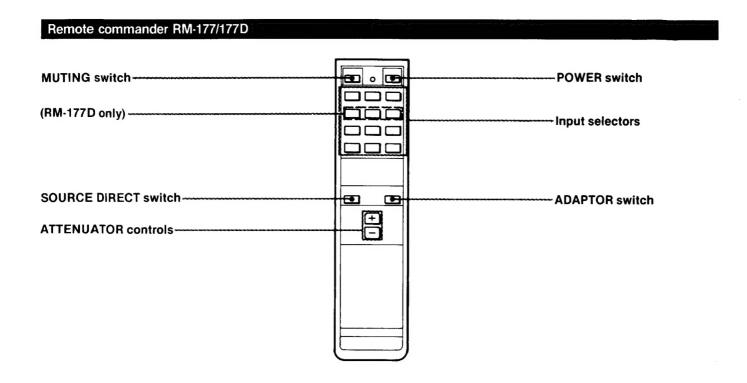
STEREO: Outputs left and right channel sound simultaneously.

Use for bilingual programs.

TV/VDP: Selects TV signal input or disc program.

#### 22 FREE buttons

A - G : Accept learning function when the LEARN/USER/SONY selector is set to LEARN. Recall the memorized function.



### Installing batteries

Open the battery lid located on the rear. Insert two (four for RM-E7) size AA (R6) batteries with correct polarity.

#### **Battery life**

About a half year of normal operation can be expected when using the Sony SUM-3(NS) batteries.

When the batteries are exhausted, the remote commander cannot operate the unit. If this happens, replace both batteries with new ones.

#### To avoid battery leakage

When the commander is not to be used for a long time, remove the batteries to avoid damage caused by battery leakage and corrosion.

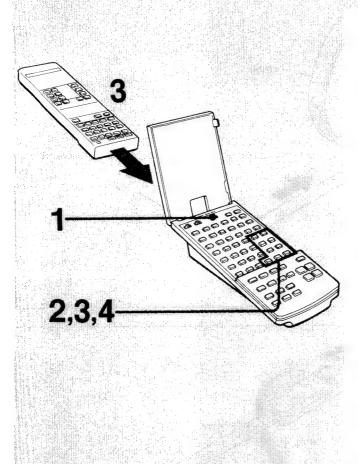
#### To avoid malfunction of the commander

Keep the commander away from extremely hot or humid place.

#### Coverage of the remote commander

The commander can remotelly control the equipments placed within the distance of 7m.

# How to use learning function (RM-E7 only)



- 1 Set LEARN/USER/SONY to LEARN. The READY indicator lights up.
- 2 Turn this commander towards another commander and press one of the FREE buttons. If the selected button is inoperative, the READY indicator flickers.

3 While keeping the FREE button pressed, press the desired function button on the other commander.

The function is memorized by this unit. When the memorization is completed, the READY indicator goes out and the LEARNED indicator lights up.

4 Release the FREE button.

The LEARNED indicator goes out and the READY indicator lights up to indicate that the next learning is ready to start.

#### When learning is finished

Set the LEARN/USER/SONY selector to a position other than LEARN. The READY indicator goes out.

#### To use the learned function

Set the LEARN/USER/SONY selector to USER.

To use for other funtions than learning Set the LEARN/USER/SONY selector to SONY.

#### Note

The memorization will be remained for two or three days without installing the batteries.

#### Index sheet

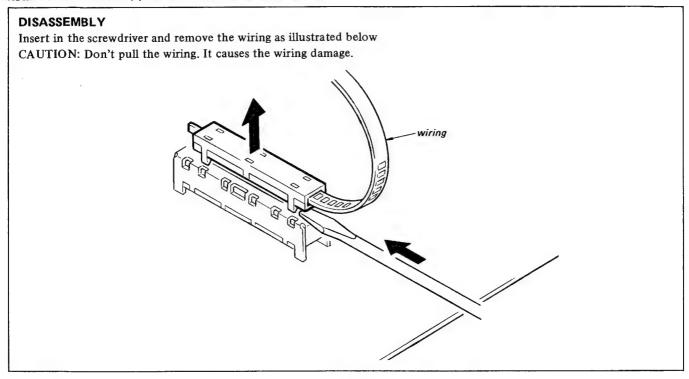
Use the supplied index sheet by placing it on the FREE buttons for further reference.

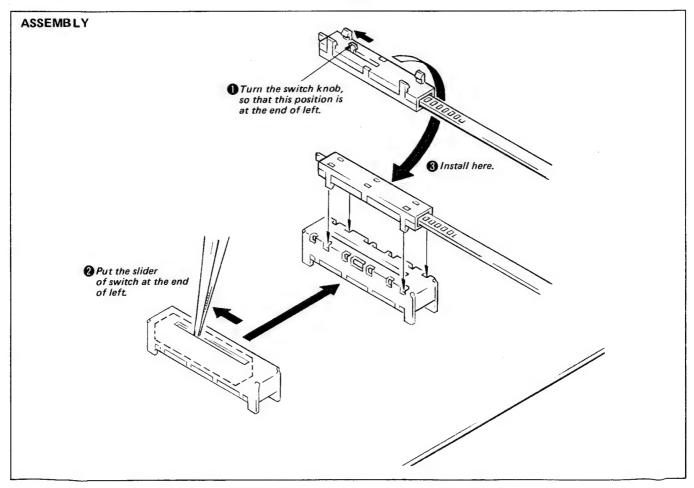
#### CAUTION

Be sure to confirm if the functions have been stored as a few of the functions of other manufacturer commanders are not storable on this commander.

# NOTE ON REPAIRING DISASSEMBLY AND ASSEMBLY FOR SWITCH SECTION

Note: Follow the assembly procedure in the numerical order given.





1. Play back any compact disc, receive the digital

3. Make sure that 44kHz sampling frequency indi-

4. Adjust RV701 so that the difference in voltage

between A, B is 170mV±10mV measuring

30 seconds later after the power switch is turn-

signal of sampling frequency 44kHz.

2. Turn on power switch in this set.

cator lamp goes ON.

# **SECTION 1 ADJUSTMENTS**

# TA-E77ESD Only

• The adjustments are required CD player having digital output followed to the DAI format (ex. CDP-552ESD or CDP-650ESD)

#### FS (Sampling frequency) Lamp Adjustment

This set automatically perceives the sampling frequency of digital signal applied. The sampling frequency, 44kHz or 48kHz, is checked by comparator (IC711) that compares the voltage applied to VCO of D FIL PLL with the reference voltage.

The FS lamp adjustment is made to adjust this reference voltage.

> Note: Wait for about 10 minutes when TH701 and C735 that are employed for thermal compensation are warmed by soldering

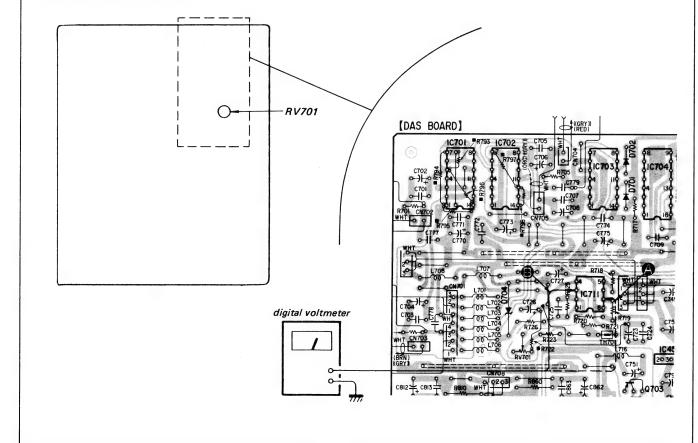
iron. Procedure: Sampling frequency: 44kHz.

TA-E77ESD

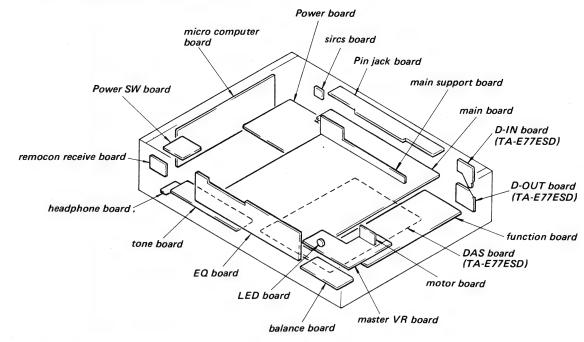
DIGITAL OUT DIGITAL IN

Adjustment Location: DAS board

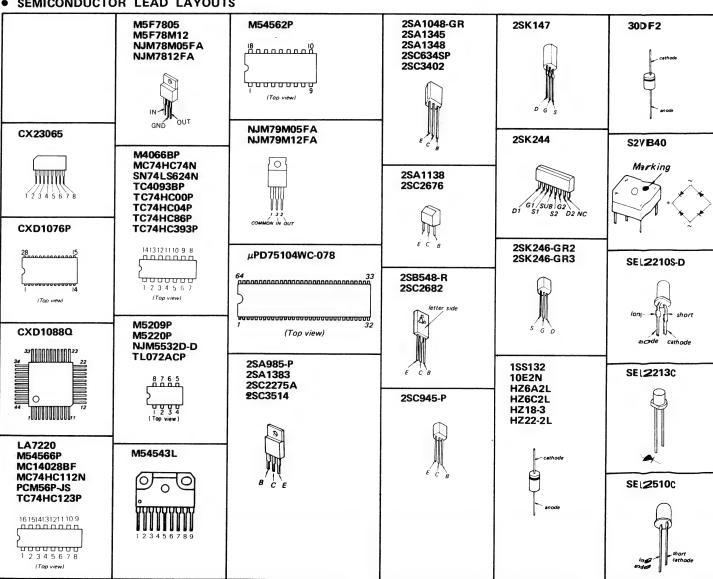
CD PLAYER



## • CIRCUIT BOARDS LOCATION



### • SEMICONDUCTOR LEAD LAYOUTS



# SECTION 2 DIAGRAMS

TA-E77ES/E77ESD

TA-E77ES/E77ESD

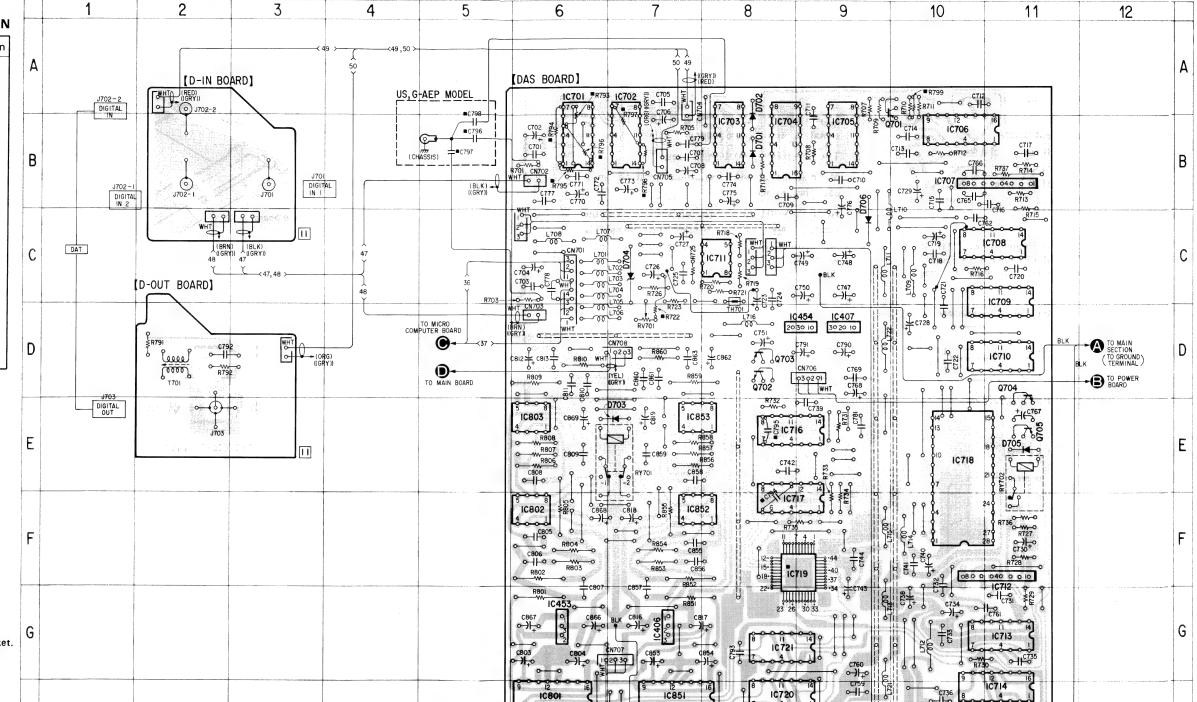
#### 2-1. MOUNTING DIAGRAM (1)

- Conductor side -

- See page 14 for circuit boards location.
- See page 14 for semiconductor lead layouts.

– D/A CONVERTER SECTION – (TA-E77ESD ONLY) – D/A CONVERTER SECTION – (TA-E77ESD ONLY)

# • SEMICONDUCTOR LOCATION Ref. No. Location Ref. No. Location IC801 IC802 IC803 IC851 IC852 IC853 H-6 F-6 E-6 H-7 F-7 G-7 D-9 G-6 D-9 A-6 1C407 1C453 1C454 1C701 IC702 IC703 IC704 IC705 IC706 A-7 B-8 B-8 B-9 B-10 Q701 Q702 Q703 Q704 Q705 B-10 D-8 D-8 B-10 C-11 C-11 D-11 IC707 IC708 IC709 IC710 IC711 D701 D702 D703 D704 D705 D706 B-8 A-8 E-7 C-7 E-11 B-9 C-8 F-11 G-11 H-11 H-10 E-8 IC712 IC713 IC714 1C715 1C716 F-8 E-10 F-9 H-8 G-8 IC717 1C718 1C719 1C720 1C721



TO MAIN BOARD

5

6

#### Note on Mounting Diagram (1):

Color code of sleeving over the end of the jacket.



- o-: parts extracted from the component side.
- partsextracted from the conductor side.
- part mounted on the conductor side.

3

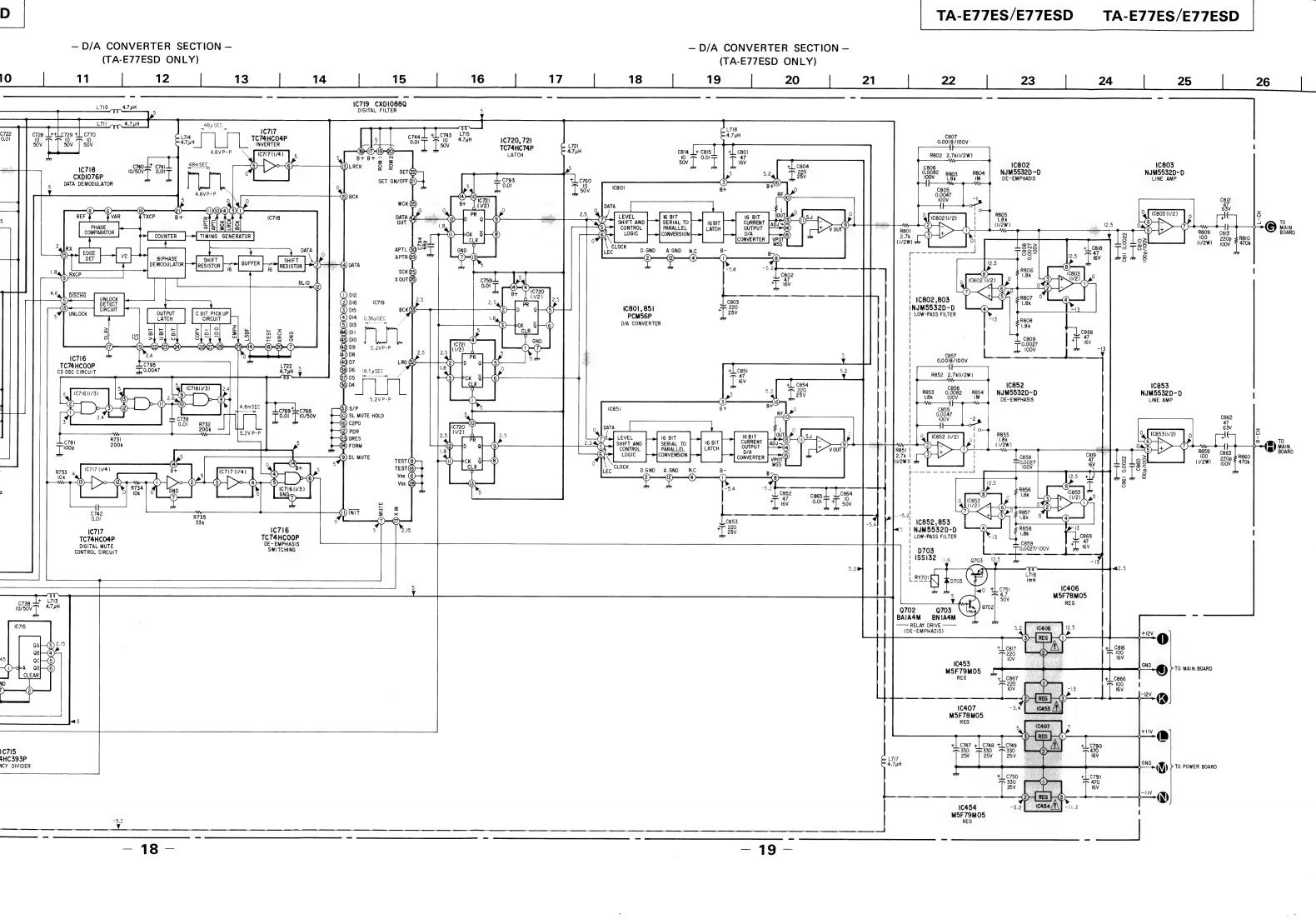
10

11

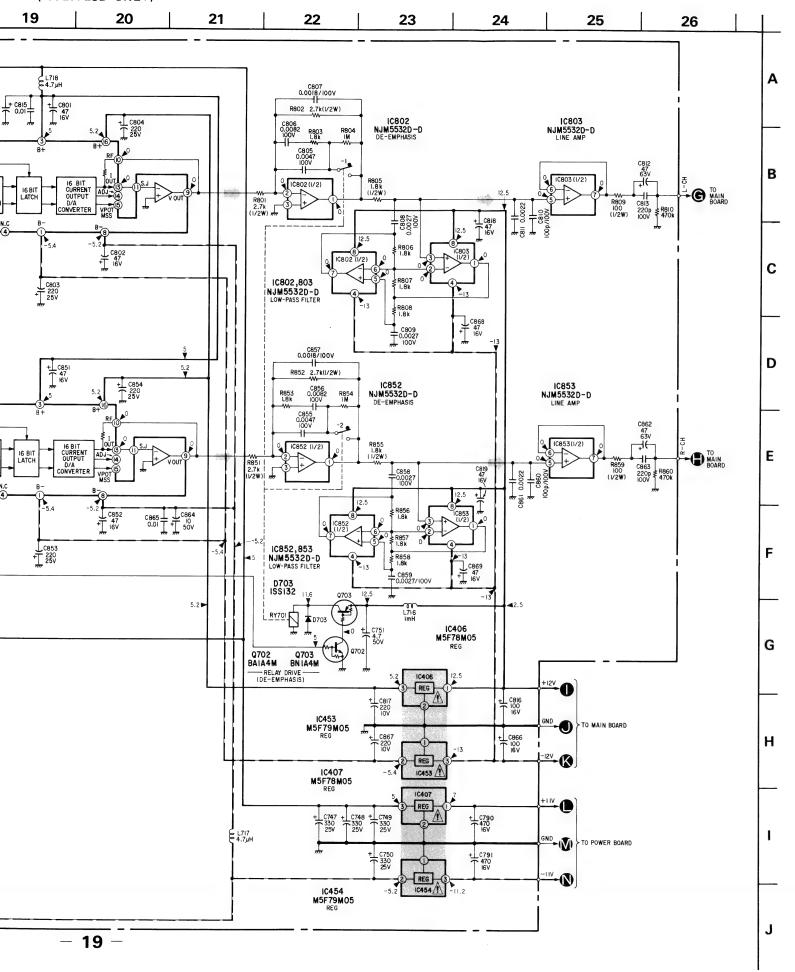
12

9

TA-E77ES/E77ESD TA-E77ES/E77ESD 2-2. SCHEMATIC DIAGRAM (1) - D/A CONVERTER SECTION -- D/A CONVERTER SECTION -(TA-E77ESD ONLY) (TA-E77ESD ONLY) 10 11 12 13 14 16 IC701 TC74HC00P IC702 TC74HC00P IC705 TC74HC86P [DAS BOARD] IC719 CXD1088Q IC7IO TC74HC74P LATCH DIGITAL IN I IC718 CXDI076P DATA DEMODULATOR IC705 TC74HC86P EDGE DET US,G-AEP C796 J702 - I IC705(1/2) IC703 TC74HC04P OUTPUT BUFFER COUNTER TIMING GENERATOR R708 1.5k US,G-AEP 2.5 C711 39p TO MICRO
COMPUTER A IC706 TC74HCI23P 2FS PRODUCE (MONOSTABLE MULTIVIBRATOR) IC704 TC74HC112P FREQUENCY DIVIDER J703 DAT DIGITAL OUT DISCHG C BIT PICK UP UNLOCK OUTPUT LATCH [D-OUT BOARD] J702-2 DAT DIGITAL IN ₹R797 20k IC702 TC74HC00P INPUT SELECT IC716 TC74HC00P cs osc circuit C779 C798 US,G-AEP 0.01 MODEL 1702 4.7µH 5.2VP-P # Q701 2SAI048 SWITCHING L703 4.7µH SL MUTE HOLD
6 C2PO TO MICRO COMPUTER BOARD 2 PDR 23 DRES 24 FORM IC707 CX23065 RX PLL PHASE COMPARATOR SEC پر 0.38 IC708 SN74LS624N RX PLL VC0 5.2VP-P IC709 TC74HC393P FREQUENCY DIVIDER IC717 TC74HC04P IC712 CX23065 DFIL PLL PHASE COMPARATOR 1C713 SN74LS624N DFIL PLL VCO C738 10/50V ↑ L713 10/50V ↑ 4.7µH L712 ImH 736 T R730 ≸ OPA QD-CLEAR 2.1 2.1 C735 27p/100V L707 4.7μH R721 ₹ TH701 D704 HZ6CIL Q704 BNIL4M Q705 Bn 144 m IC714 TC74HCI12P FREQUENCY DIVIDER 1C715 TC74HC393P FREQUENCY DIVIDER TO MICRO COMPUTER BOARD IC717 TC74HC04P FS LAMP ADJ 9 IC711 TLO72CP **- 17 -- 18** 







#### Note on Schematic Diagram (1):

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $^{1}\!/_{4}W$  or less unless otherwise specified.
- 🖒 : signal path.

Note: The components identified by shading and mark A are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et une marque A sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- == : B+ bus.
- B- bus
- : adjustment for repair.
- Voltages are dc with respect to ground unless otherwise noted
- Readings are taken under no-signal conditions with a VOM (50 k $\Omega$ /V).
- No mark: DIGITAL 1 ( ): DIGITAL 2 (( )): DAT
- Voltage variations may be noted due to normal production tolerances
- Waveforms are taken to ground in no-signal conditions by using oscilloscope.

Voltage variations may be noted due to normal production tolerances.

TA-E77ES/E77ESD

2-3. MOUNTING DIAGRAM (2)

- Conductor side -

- CONTROL AMP SECTION -

• See page 14 for semiconductor lead layouts. • See page 21 for nots and semiconductor location. TA-E77ES/E77ESD

TA-E77ES/E77ESD

- CONTROL AMP SECTION -

- CONTROL AMP SECTION -

• SEMICONDUCTOR LOCATION

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
IC101	I-7	Q253	H-3	D609	E-27
IC201	G-2	Q254	H-3	D610	E-21
IC401	I-9	Q255	H-3	D611	G-30
IC402	H-10	Q401	J-10	D612	J-17
IC404	K-31	Q402	I-10	D613	J-17
1C405	K-30	Q451	I-7	D614	I-17
1C451	H-10	Q452	I-8	D615	I-17
1C501	B-19	Q501	A-19	D616	J-19
1C502	B-20	Q502	B-20	D617	J-19
1C601	C-28	Q503	B-20	D618	I-19
1C602	C-26	Q504	B-18	D619	I-19
1C603	F-26	Q601	C-26	D620	J-18
1C604	H-27	Q603	C-25	D621	J-18
1C605	I-27	Q604	B-25	D622	I-19
1C606	H-26	Q691	C-25	D623	I-19
IC607	D-12	Q692	B-25	D624	-18
IC608	D-12	Q951	A-16	D625	-18
IC609	E-13	Q952	A-16	D626	-18
IC610	F-22	Q953	A-16	D627	-18
IC611	I-24	Q954	A-17	D628	-12
IC951 IC952 IC953	B-13 B-16 B-17	Q955 Q956	A-17 A-17	D629 D630 D631 D632 D633	I-12 J-12 J-12 I-12 I-12
Q101 Q103 Q104 Q105 Q106	F-8 E-9 F-9 G-9	D101 D102 D103 D151 D401	F-7 H-5 I-5 F-10 H-30	D634 D635 D636 D637 D638	I-22 I-22 J-22 J-22 I-22
Q107	F-7	D402	H-30	D639	-22
Q108	G-7	D403	I-9	D640	-17
Q109	G-9	D404	I-10	D641	-17
Q110	G-7	D405	K-29	D642	-20
Q151	F-10	D406	J-31	D643	-20
Q153	E-10	D451	I-30	D644	1-20
Q154	F-9	D452	I-30	D645	D-20
Q155	F-9	D453	I-8	D650	B-27
Q156	G-9	D454	I-8	D651	C-27
Q157	F-11	D501	A-18	D652	F-27
Q158 Q159 Q160 Q201 Q202	G-11 G-9 G-10 F-1 F-1	D502 D503 D504 D601 D602	A-18 A-18 A-18 B-27 B-27	D691	C-26
Q203 Q204 Q205 Q251 Q252	H-1 H-1 H-1 F-2 F-3	D603 D604 D605 D607 D608	B-27 B-26 C-26 C-21 E-27		

# Note on Mounting Diagram (2):

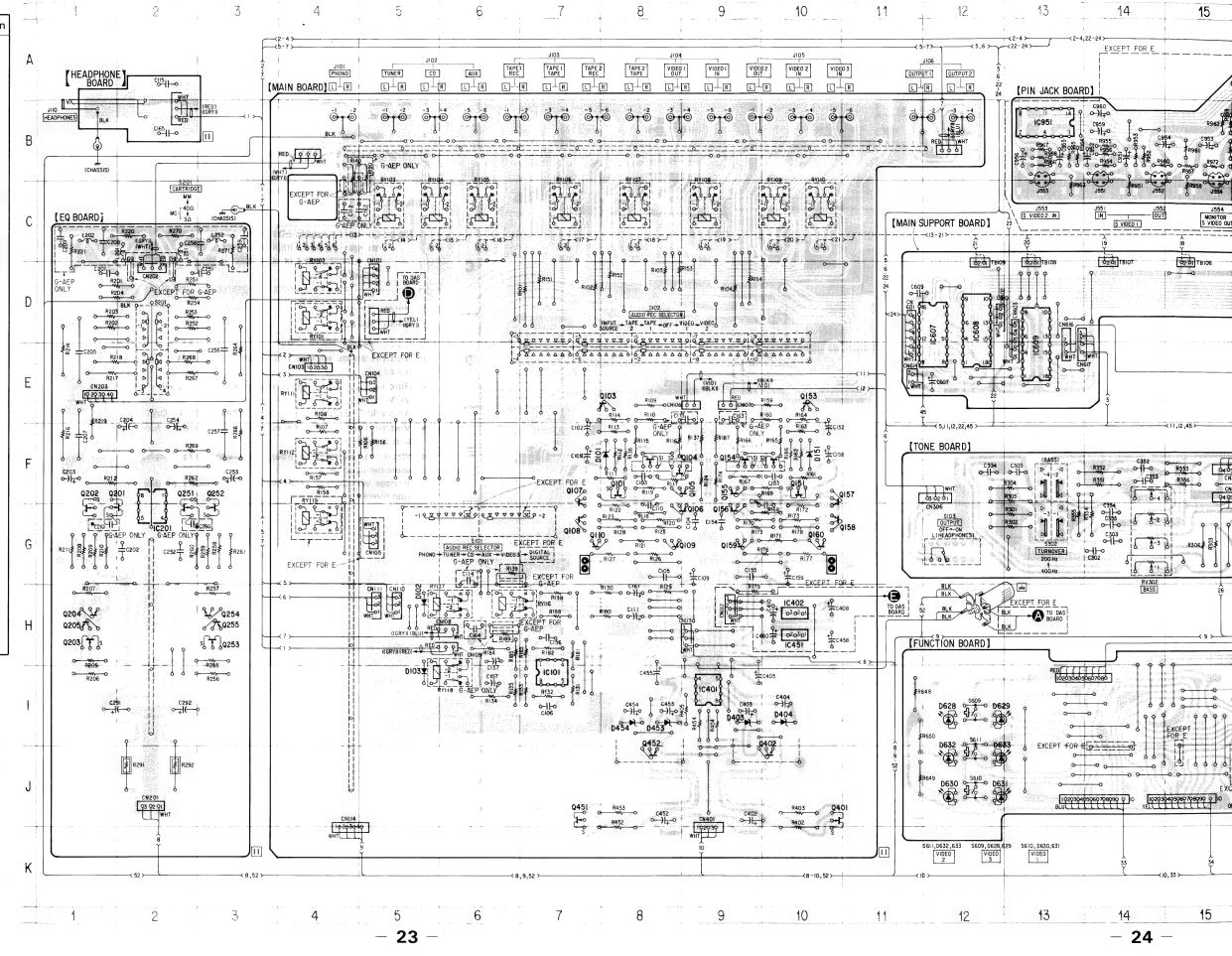
Color code of sleeving over the end of the jacket.



: parts extracted from the component side.

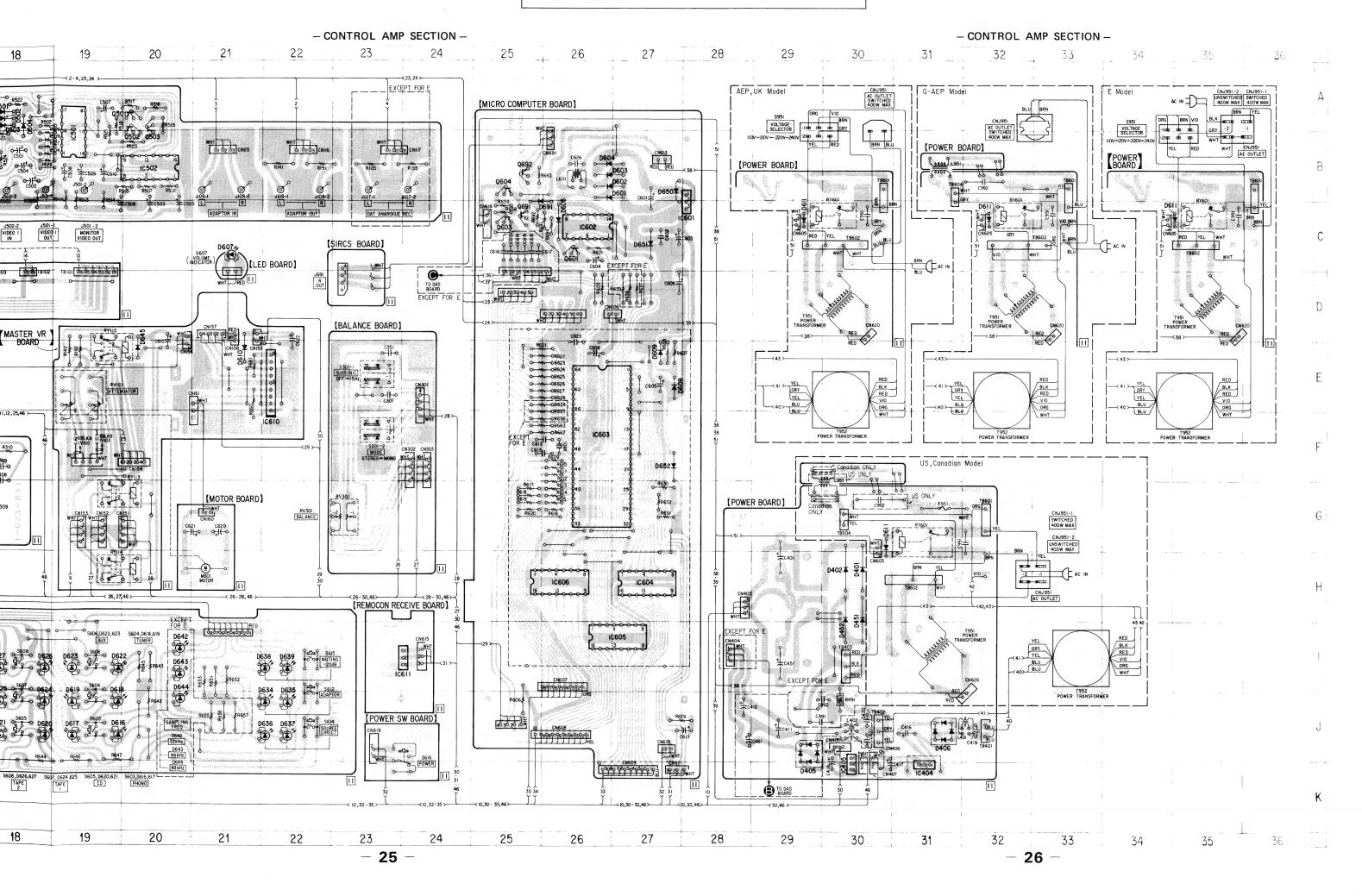
: parts extracted from the conductor side.

: part mounted on the conductor side.

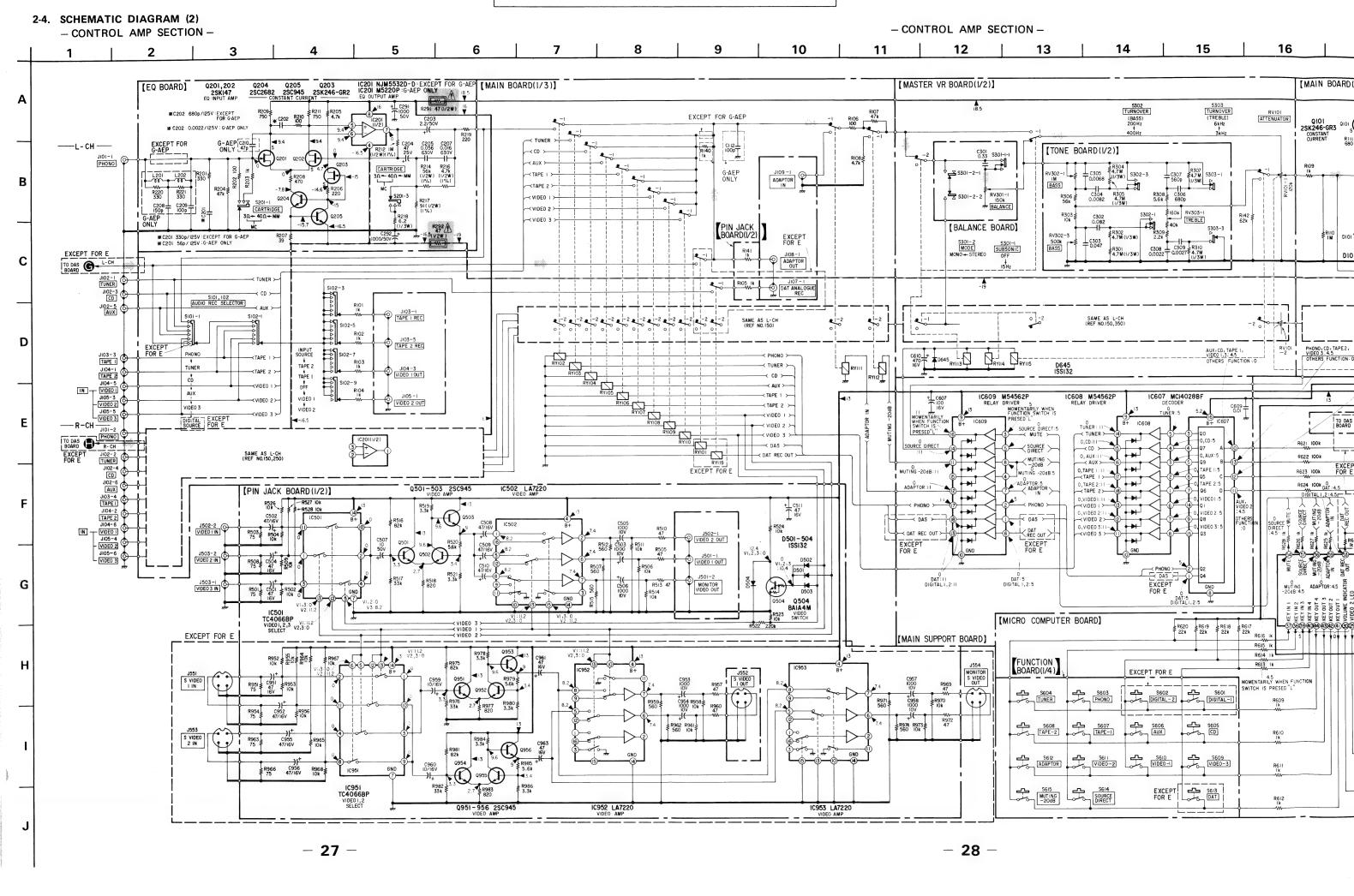


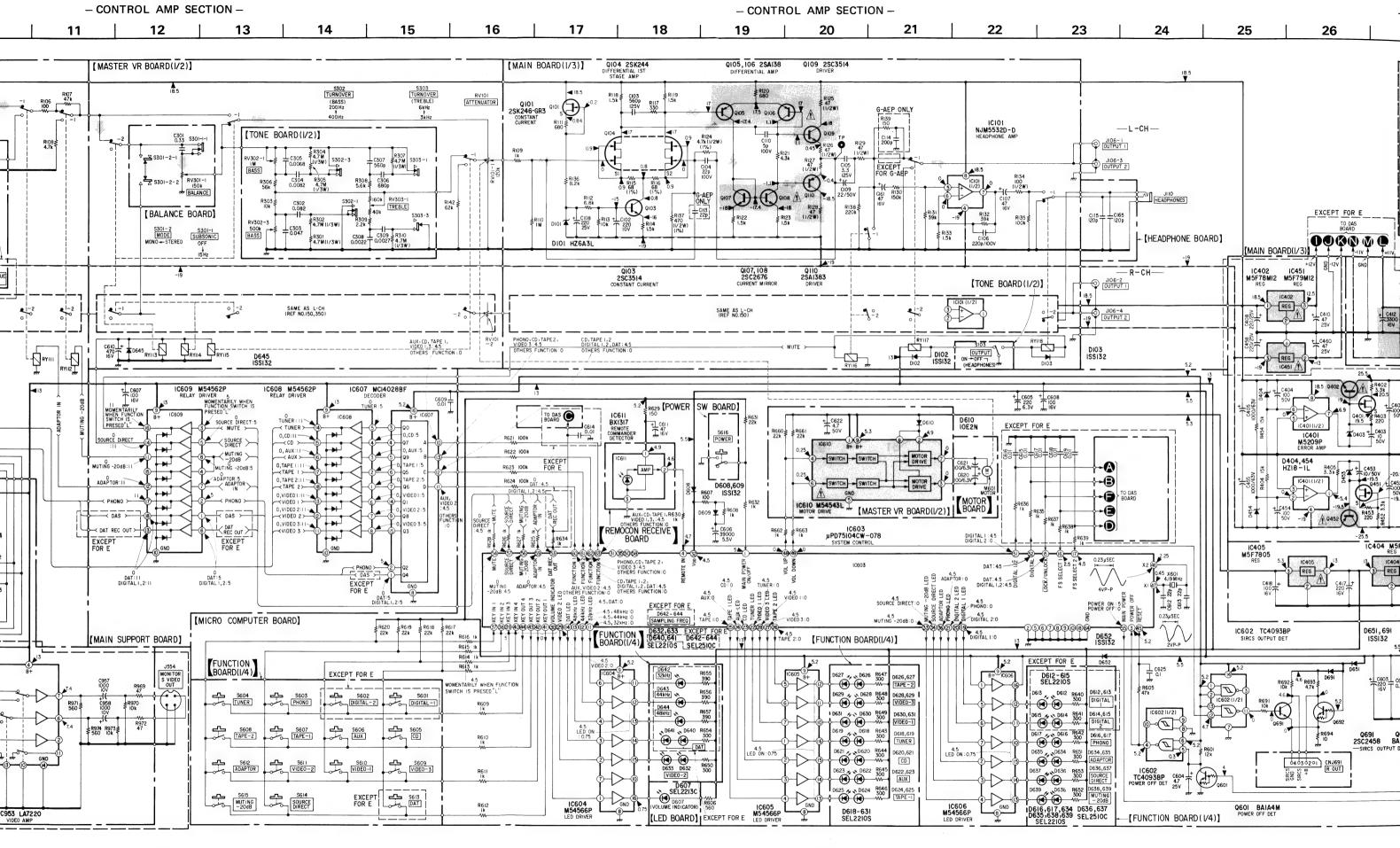
**- 25 -**

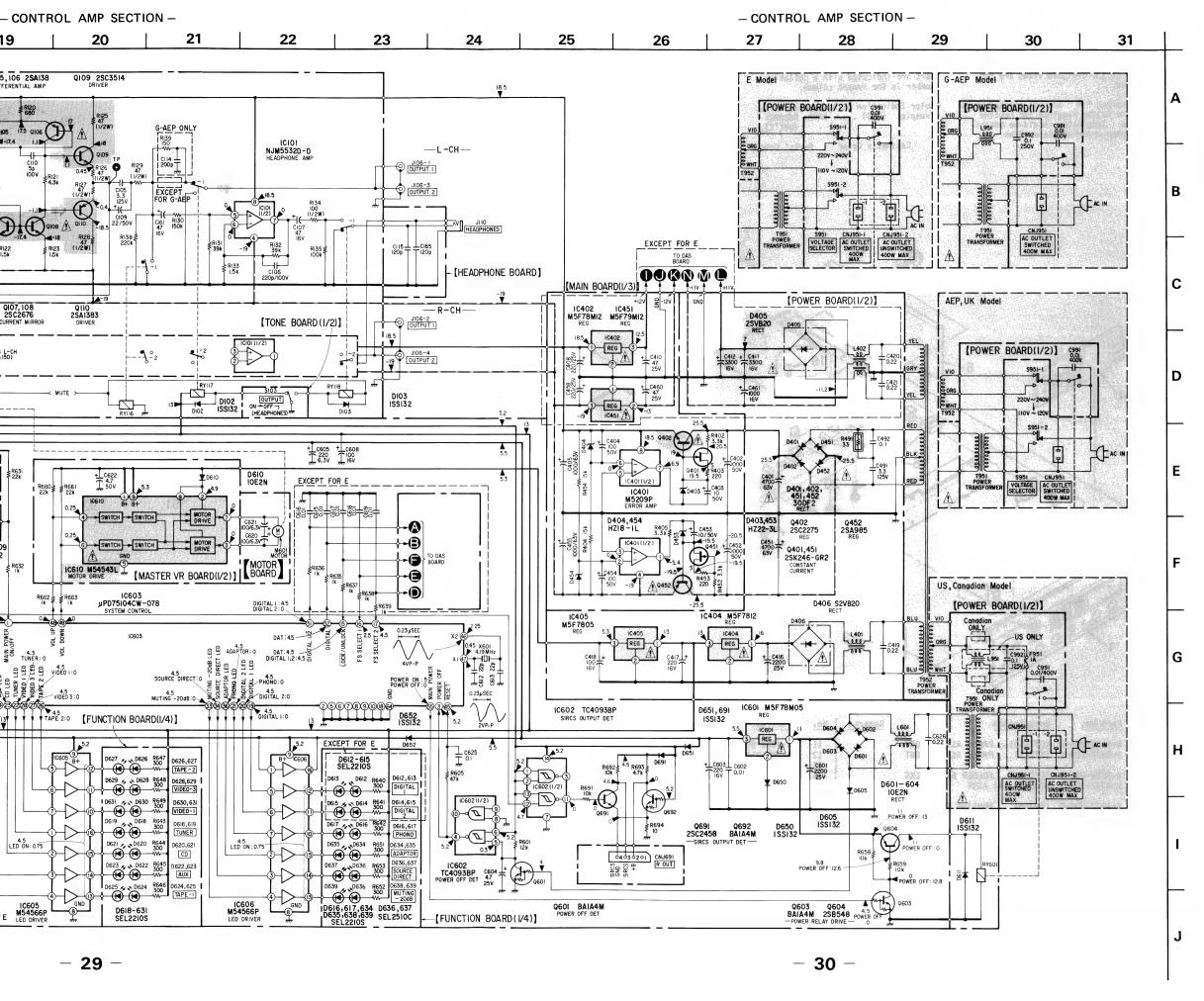
**- 24 -**



TA-E77ES/E77ESD TA-E77ES/E77ESD







#### Note on Schematic Diagram (2):

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $^{1}\!/_{4}\,W$  or less unless otherwise specified.
- 🖒 : signal path (DIGITAL).

Note: The components identified by shading and mark

A are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et une marque A sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- Components for right channel have same values as for left channel. Reference numbers are coded from 150, 250, 350
- %: indicates tolerance.
- monflammable resistor.
- Switch

Ref. No.	Switch	Position
S101	AUDIO REC SELECTOR	PHONO
S102	AUDIO REC SELECTOR	INPUT SOURCE
S103	OUTPUT	ON
S201	CARTRIDGE	MM
S301	SUBSONIC, MODE	OFF, STEREO
S302	TURNOVER (BASS)	400Hz
S303	TURNOVER (TREBLE)	3kHz
S601	DIGITAL-1	OFF
S602	DIGITAL-2	OFF
S603	PHONO	OFF
S604	TUNER	OFF
S605	CD	OFF
S606	AUX	OFF
S607	TAPE-1	OFF
S608	TAPE-2	OFF
S609	VIDEO-3	OFF
S610	VIDEO-1	OFF
S611	VIDEO-2	OFF
S612	ADAPTOR	OFF
S613	DAT	OFF
S614	SOURCE DIRECT	OFF
S615	MUTING -20dB	OFF
S616	POWER	OFF
S951	VOLTAGE SELECTOR	220V-240V

- : B+ bus.
- === : B- bus.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal conditions with a VOM (50 k $\Omega$ /V).
  - No mark: PHONO
- V1: VIDEO 1
- V2: VIDEO 2
- V3: VIDEO 3
- Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken to ground in no-signal conditions by using oscilloscope.
- Voltage variations may be noted due to normal production tolerances.

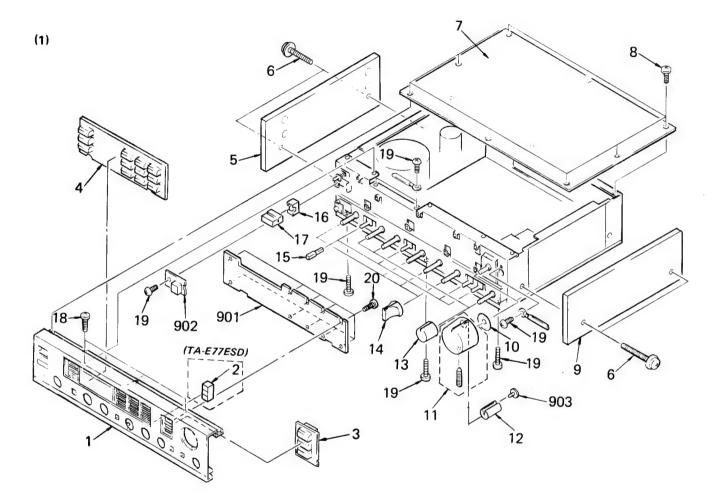
# **SECTION 3 EXPLODED VIEWS AND PARTS LIST**

- NOTE:
   The mechanical parts with no reference number in the exploded views are not
- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Color Indication of Appearance Parts Example: (RED) ..... KNOB, BALANCE Cabinet's Color Parts' Color

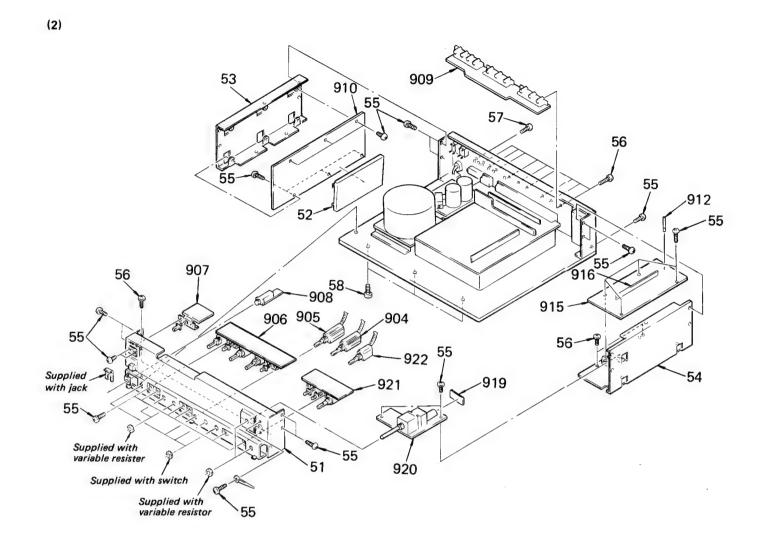
The components identified by shading and mark Aare critical for safety.

Replace only with part number specified.

Les composants identifiés par une trame et une marque Asont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

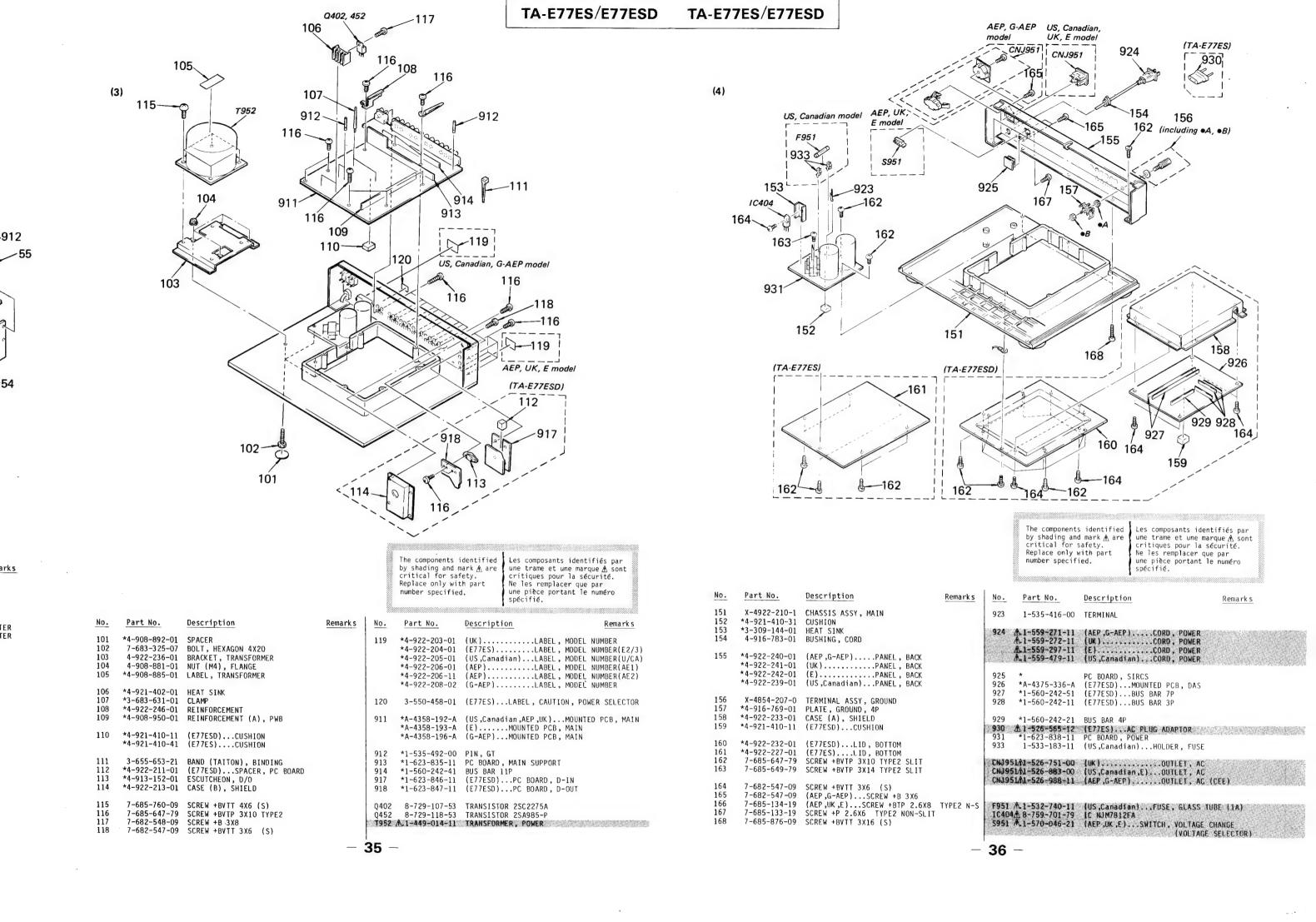


No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
1	X-4922-208-1 X-4922-209-1	(E77ESD)PANEL ASSY, FRONT		11	X-4922-201-1	KNOB ASSY	
	x-4322-503-1	(E77ES)PANEL ASSY, FRONT		12	*4-901-919-00		
2	*Y 4000 000 1	(rates)		13	4-916-746-01	KNOB (DIA.21)	
2	*X-4922-203-1	TELLISTIC COLIN		14	4-916-745-01	KNOB (DIA.21)	
3	X-4922-202-1	HOUSING (A) ASSY		15	4-855-804-11	KNOB, SQUARE	
4	X-4922-204-0	(E77ES)HOUSING (C) ASSY		16	*4 004 207 00	DIMO	
-		(E77ESD)HOUSING (B) ASSY		16	*4-864-307-00	RING	
5	Y-4022-206-2	DIATE (LEET) ACCA CIDE CONTACT		17	4-908-046-01	KNOB, SQUARE	
J	N-4322-200-2	PLATE (LEFT) ASSY, SIDE, ORNAME	NIAL	18	7-682-548-09	SCREW +B 3X8	
6	4DOE 070 11	CORELL (AVOE)		19	7-682-547-09		
9	4-885-979-11	SCREW (4X25)		20	7-685-133-19	SCREW +BTP 2.6X6 TYPE 2 N-S	
/	4-922-238-01	PLATE, TOP					
8	4-921-439-01			901	*1-623-841-11	PC BOARD, FUNCTION	
9	X-4922-207-2	The transfer of the state of th	ENTAL	902		PC BOARD, REMOCON RECEIVE	
10	3-533-938-00	CLOTH		903	*1-623-844-11		



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
51 52 53		CHASSIS, FRONT CASE (C), SHIELD BRACKET, MICRO COMPUTER PCBOARD		906 907 908	*1-623-842-11	PC BOARD, TONE PC BOARD, POWER SW PC BOARD, HEADPHONE	
54 55 56		BRACKET, EQ PC BOARO SCREW +BVTT 3X6 (S) SCREW +BVTP 3X10 TYPE2		909 910	*1-623-834-11 *A-4375-333-A	PC BOARD, PIN JACK  (E77ESD)MOUNTED PCB, (E77ES)MOUNTED PCB,	MICRO COMPUTER MICRO COMPUTER
57		(E77ESD)SCREW +BVTT 3X10 TYP (E77ES)SCREW +BVTT 3X6 (S)		912 915 916	*1-535-492-00 *1-623-831-11 *1-560-242-21	PC BOARD, EQ	
58 904	7-685-873-09 1-571-246-11	SCREW +BYTT 3X10 (S) SWITCH, ROTARY		919		PC BOARD, MOTOR	
905		(E77ESD)SWITCH, ROTARY (REMO (E77ES)SWITCH, ROTARY (REMO		920 921 922	*1-623 <b>-</b> 832-11	PC BOARD, MASTER VR PC BOARD, BALANCE SWITCH, ROTARY (REMOTE)	

7-68 7-68 7-68 7-68



# **SECTION 4 ELECTRICAL PARTS LIST**

#### NOTE:

- · Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuitsin a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS: MF:μF, PF:μμF.

RESISTORS

All resistors are in ohms.F: nonflammable

COILS · MMH : mH, UH : μH

SEMICONDUCTORS

In each case, U : μ, for example: UA...: μA..., UPA...: μPA..., UPC...: μPC, UPD...: μPD...

The components identified by shading and mark A are critical for safety.

Replace only with part number specified.

Les composants identifiés par une trame et une marque∱sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

ELECTRICAL PARTS						ELECTRIC	AL PARTS				
Ref.No.	Part No.	Description				Ref.No.	Part No.	Description			
901 902 903 904	*1-623-841-11 *1-623-843-11 *1-623-844-11 1-571-246-11	PC BOARD, RE PC BOARD, LE	MOCON RECEI D	VΕ		C108 C109 C110	1-123-334-00 1-123-357-00 1-107-026-00	ELECT MICA	220MF 22MF 5PF	20% 20% 0.5PF	25V 50V 100V
905	1-571-245-11 1-571-247-11					C111 C112 C113	1-124-684-71 1-102-973-00 1-102-959-00	ELECT (G-AEP)CE (G-AEP)CE			16V 50V 50V
906 907 908 909	*1-623-833-11 *1-623-842-11 *1-623-839-11 *1-623-834-11	PC BOARD, PO PC BOARD, HE	WER SW ADPHONE			C114 C115 C152	1-102-977-00 1-162-283-31 1-124-124-00	(G-AEP)CE CERAMIC ELECT	120PF 220MF	10% 20%	50V 50V 10V
910	*A-4375-333-A *A-4375-334-A					C153 C154 C155	1-104-254-11 1-107-210-00 1-130-673-00	POLYSTYRENE MICA FILM	560PF 22PF 3.3MF	5% 5% 10%	125V 100V 125V
911	*A-4358-192-A *A-4358-193-A *A-4358-196-A		MOUNTED PO	CB, MAIN	l	C156 C157 C158	1-124-684-71	MICA ELECT ELECT	220PF 47MF 220MF	5% 20% 20%	100V 16V 25V
912 913 914	*1-535-492-00 *1-623-835-11 *1-560-242-41		IN SUPPORT			C159 C160 C161	1-123-357-00 1-107-026-00 1-124-684-71	ELECT MICA ELECT	22MF 5PF 47MF	20% 0.5PF 20%	50V 100V 16V
915 916 917	*1-623-831-11 *1-560-242-21 *1-623-846-11	PC BOARD, EQ BUS BAR 4P (E77ESD)P		IN		C162 C163 C164 C165	1-102-973-00 1-102-959-00 1-102-977-00 1-162-283-31	(G-AEP)CE (G-AEP)CE (G-AEP)CE CERAMIC	RAMIC 22PF	5% F 5%	50V 50V 50V 50V
918 919 920	*1-623-847-11 *1-623-837-11 *1-623-836-11	PC BOARD, MO	TOR	OUT		C201 C201	1-104-243-00 1-104-249-11	(G-AEP)PO (E)PO			
921 922 923	*1-623-832-11 1-571-244-11 1-535-416-00	PC BOARD, BA SWITCH, ROTA TERMINAL				C202 C202	1-104-150-00 1-104-151-00	(E)PO (G-AEP)PO	LYSTYRENE	2200PF 5	% 125V
	ል.1-559-271-11 ል.1-559-272-11 ል.1-559-297-11	(AEP,G-AEP). (UK)	CORD , P(	OWER		C203 C204 C205	1-123-332-00	ELECT ELECT FILM	2.2MF 47MF 0.056MF	20% 20% 2%	50V 25V 630V
	* 1-559-479-11 * *A-4375-336-A *1-560-242-51	(US,Canadian PC BOARD, SI	)CORD. PO RCS OUNTED PCB,	OVER		C207 C208 C209 C210	1-130-206-00 1-101-361-00 1-102-973-00 1-101-880-00	FILM (G-AEP)CE (G-AEP)CE (G-AEP)CE	RAMIC 100P	F 5%	63 0V 50V 50V 50V
928 929	*1-560-242-11 *1-560-242-21					C251 C251	1-104-243-00 1-104-249-11	(G-AEP)PO (E)PO	LYSTYRENE	330PF 5	125V
eresita con Principalita	<u>A 1-526-565-12</u>	CONTRACTOR OF THE PROPERTY OF THE CONTRACTOR OF	man-albanian) entiritaritaritaritaritaritaritari	FOR ELE		C252 C252	1-104-150-00 1-104-151-00	(E)PG (G-AEP)PO			
931 933 C102	*1-623-838-11 1-533-183-11 1-124-124-00	(US,Canadian		FUSE 20%	10V	C253 C254 C255	1-123-381-00 1-123-332-00 1-129-723-00	ELECT ELECT FILM	2.2MF 47MF 0.056MF	20% 20% 2%	50V 25V 630V
C102 C103 C104	1-104-254-11 1-107-210-00 1-130-673-00	POLYSTYRENE MICA		5% 5% 10%	125V 100V	C257 C258 C259	1-130-206-00 1-101-361-00 1-102-973-00	FILM (G-AEP)CE (G-AEP)CE	0.016MF RAMIC 150P	2% F 5%	63 OV 5 OV 5 OV
C106 C107	1-109-621-00 1-124-684-71		220PF 47MF	5% 20%	100V 16V	C260 C291 C292	1-101-880-00 1-124-622-11 1-124-622-11	(G-AEP)CE ELECT ELECT	RAMIC 47PF 1000MF 1000MF	5% 20% 20%	50V 50V 50V

	ELECTRIC	AL PARTS					ELECTRIC	AL PARTS			
Ref.No.	Part No.	Description				Ref.No.	Part No.	Description			
C301 C302 C303	1-136-171-00 1-136-164-00 1-136-161-00	FILM FILM FILM	0.33MF 0.082MF 0.047MF	5% 5% 5%	50V 50V 50V	C508 C508	1-123-332-00 1-124-477-11	(E77ES)ELI (E77ESD)ELI	ECT 47MF	20% 20%	16V 16V
C304 C305		MYLAR MYLAR	0.0082MF 0.0068MF	5% 5%	50V 50V	C509 C509	1-123-332-00 1-124-477-11	(E77ES)ELI (E77ESD)ELI	ECT 47MF	20% 20%	16V 16V
C306 C307	1-130-469-00 1-130-468-00	MYLAR	680PF 560PF	5% 5%	50V 50V	C510 C510	1-123-332-00 1-124-477-11	(E77ES)EL		20% 20%	16V 16V
C308 C309	1-130-475-00 1-130-476-00	MYLAR MYLAR	0.0022MF 0.0027MF	5% 5%	50V 50V	C511 C511	1-123-332-00 1-124-477-11	(E77ES)ELI (E77ESD)ELI		20% 20%	16V 16V
C351 C352 C353	1-136-171-00 1-136-164-00 1-136-161-00	FILM FILM FILM	0.33MF 0.082MF 0.047MF	5% 5% 5%	50V 50V 50V	C601 / C602 C603	1-123-338-00 1-136-153-00 1-123-321-00	FILM	2200MF 0.01MF 220MF	20% 5% 20%	<b>25V</b> 50V 16V
C354 C355 C356	1-130-482-00 1-130-481-00 1-130-469-00	MYLAR MYLAR MYLAR	0.0082MF 0.0068MF 680PF	5% 5% 5%	50V 50V 50V	C604 C605 C606	1-123-369-00 1-124-124-00 1-124-958-11	ELECT	4.7MF 220MF 39000MF	20% 20%	25 <b>Y</b> 6.3 V 5.5 V
C357 C358 C359	1-130-468-00 1-130-475-00 1-130-476-00	MYLAR MYLAR MYLAR	560PF 0.0022MF 0.0027MF	5% 5% 5%	50V 50V 50V	C607 C608 C609	1-123-333-00 1-123-333-00 1-136-153-00	ELECT	100MF 100MF 0.01MF	20% 20% 5%	16V 16V 50V
C401 Z C402 C403	1-125-431-11 1-124-622-11 1-123-356-00	ELECT(BLOCK) ELECT ELECT	<b>4700MF</b> 1000MF 10MF	20% 20% 20%	<b>63Y</b> 50V 50V	C610 C611 C612	1-123-323-00 1-123-332-00 1-162-207-31	ELECT	470MF 47MF 22PF	20% 20% 5%	16 <b>V</b> 16 <b>V</b> 50 <b>V</b>
C404 C405 C408	1-124-725-00 1-123-378-00 1-123-334-00	ELECT ELECT (E77ESD)EL	100MF 1000MF ECT 220MF	20% 20% 20%	50V 63V 25V	C613 C614 C615	1-162-207-31 1-161-379-00 1-161-379-00	CERAMIC (E77ESD)CE (E77ESD)CE			50V 16V 16V
	1-123-332-00 1-124-887-00 1-124-887-00	(E77ESD)EL (E77ESD)EL (E77ESD)EL	ECT 3300M		25V 16V 16V	C616 C617 C618	1-161-379-00 1-161-379-00 1-161-379-00	(E77ESD)CE (E77ESD)CE (E77ESD)CE	RAMIC 0.01N	1F 30%	16 <b>V</b> 16 <b>V</b> 16 <b>V</b>
C416 Z C417 C418	1-124-563-11 1-123-321-00 1-123-333-00	ELECT	2200MF 220MF 100MF	20% 20% 20%	25 <b>V</b> 16V 16V	C619 C620 C621	1-161-379-00 1-124-123-00 1-124-123-00		RAMIC 0.01M 100MF 100MF	IF 30% 20% 20%	16V 6.3V 6.3V
C419 C420 C421	1-136-169-00 1-136-169-00 1-136-169-00	FILM (E77ESD)FI (E77ESD)FI			50V 50V 50V	C622 C623 C624	1-123-369-00 1-136-165-00 1-136-165-00	FILM	4.7MF 0.1MF 0.1MF	20% 5% 5%	50 <b>V</b> 50 <b>V</b> 50 <b>V</b>
C451 A C452 C453	1+125-431-11 1-124-622-11 1-123-356-00		<b>4700MF</b> 1000MF 10MF	20% 20% 20%	<b>63V</b> 50V 50V	C625 C626 C701	1-136-165-00 1-136-169-00 1-136-153-00		0.1MF 0.22MF LM 0.01M	5% 5% 1F 5%	50 <b>V</b> 50 <b>V</b> 50 <b>V</b>
C454 C455 C458	1-124-725-00 1-123-378-00 1-123-334-00	ELECT ELECT (E77ESD)EL	100MF 1000MF ECT 220MF	20% 20% 20%	50V 63V 25V	C702 C703 C704	1-123-382-00 1-136-153-00 1-123-382-00	(E77ESD)EL (E77ESD)FI (E77ESD)EL	LM 0.01N	20% IF 5% 20%	50 <b>V</b> 50 <b>V</b> 50 <b>V</b>
C460 C461 2 C491 C492	1-123-332-00 1-123-324-00 1-130-673-00 1-136-165-00	(E77ESO)EL	ECT 47MF ECT 1000MF 3.3MF 0.1MF	20% 20% 10% 5%	25V 16V 125V 50V	C705 C706 C707	1-136-153-00 1-123-382-00 1-136-153-00	(E77ESD)FI (E77ESD)EL (E77ESD)FI	ECT 33MF	20%	50 <b>V</b> 50 <b>V</b> 50 <b>V</b>
C501 C501	1-123-332-00 1-124-477-11	(E77ES)EL (E77ESD)EL	ECT 47MF	20% 20%	16V 16V	C708 C709 C710	1-124-963-11 1-136-153-00 1-136-153-00	(E77ESD)EL (E77ESD)FI (E77ESD)FI	LM 0.01N		16 <b>V</b> 50 <b>V</b> 50 <b>V</b>
C502 C502	1-123-332-00 1-124-477-11	(E77ES)EL (E77ESD)EL		20% 20%	16V 16V	C711 C712 C713	1-162-213-31 1-107-294-00 1-136-153-00	(E77ESD)CE (E77ESD)MI (E77ESD)FI	CA 56PF	5% 5% MF 5%	50 <b>V</b> 10 <b>O</b> V 50 <b>V</b>
C503 C503	1-124-473-11 1-124-559-51	(E77ESD)EL	ECT 1000MF	20%	10V 10V	C714 C715	1-104-150-00 1-136-153-00	(E77ESD)PO (E77ESD)FI (E77ESD)FI	LM 0.01	1F 5%	5% 125V 50 <b>V</b> 50 <b>V</b>
C504 C504	1-123-332-00 1-124-477-11	(E77ES)EL (E77ESD)EL		20% 20%	16V 16V	C716 C717	1-136-153-00 1-136-173-00	(E77ESD)FI		1F 5%	50 <b>V</b>
C505 C505	1-124-473-11 1-124-559-51	(E77ESD)EL	ECT 1000MF	20% 20%	10V 10V	C718 C719	1-136-153-00 1-124-123-00	(E77ESD)FI (E77ESD)EL	LM 0.011 ECT 100M	20%	50 <b>V</b> 10 <b>V</b>
C506 C506	1-124-473-11 1-124-559-51	(E77ESD)EL		20% 20%	10V 10V	C720 C721 C722	1-107-165-00 1-136-153-00 1-136-153-00	(E77ESD)MI (E77ESD)FI (E77ESD)FI	LM 0.01		10 <b>OV</b> 50 <b>V</b> 50 <b>V</b>
C507	1-123-875-11	ELECT	10MF	20%	50 <b>V</b>			•			

The components identified by shading and mark ♠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et une marque & sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numé ro spécifié.

	ELECTRIC	AL PARTS					ELECTRIC	AL PARTS			
Ref.No.	Part No.	Description				Ref.No.	Part No.	Description			
C723	1-123-380-00	(E77ESD)ELECT	1MF	20%	50V	C806	1-130-848-00	(E77ESD)FILM	0.0082MF	5%	100V
C724	1-136-153-00	(E77ESD)FILM	0.01MF	5%	50V	C807	1-130-279-00	(E77ESD)FILM	0.0018MF		100V
C725	1-130-471-00	(E77ESD)MYLAR	0.001MF	5%	50V	C808	1-130-729-00	(E77ESD)FILM	0.0027MF		100V
C726	1-123-330-00	(E77ESD)ELECT	22MF	20%	25V	C809	1-130-729-00	(E77ESD)FILM	0.0027MF	5%	100V
C727	1-123-330-00	(E77ESD)ELECT	22MF	20%	25V	C810	1-107-169-00	(E77ESD)MICA	100PF		100V
C728	1-123-356-00	(E77ESD)ELECT	10MF	20%	50V	C811	1-130-475-00	(E77ESD)MYLAR	0.0022MF		50V
C729	1-123-356-00	(E77ESD)ELECT	10MF	20%	50V	C812	1-123-373-00	(E77ESD)ELECT	47MF	20%	63V
C730	1-123-330-00	(E77ESD)ELECT	22MF	20%	25V	C813	1-109-621-00	(E77ESD)MICA	220PF	5%	100V
C731	1-162-199-31	(E77ESD)CERAMIC	10PF	5%	50V	C814	1-123-356-00	(E77ESD)ELECT	10MF	20%	50V
C732	1-136-153-00	(E77ESD)FILM	0.01MF	5%	50V	C815	1-136-153-00	(E77ESD)FILM	0.01MF	5%	50V
C733	1-136-153-00	(E77ESD)FILM	0.01MF	5%	50V	C816	1-123-333-00	(E77ESD)ELECT	100MF	20%	16V
C734	1-124-123-00	(E77ESD)ELECT	100MF	20%	10V	C817	1-124-124-00	(E77ESD)ELECT	220MF	20%	10V
C735	1-107-157-00	(E77ESD)MICA	27PF	5%	100V	C818	1-123-332-00	(E77ESD)ELECT	47MF	20%	16V
C736	1-136-153-00	(E77ESD)FILM	0.01MF	5%	50V	C819	1-123-332-00	(E77ESD)ELECT	47MF	20%	16V
C737	1-136-153-00	(E77ESD)FILM	0.01MF	5%	50V	C851	1-123-332-00	(E77ESD)ELECT	47MF	20%	16V
C738	1-123-356-00	(E77ESD)ELECT	10MF	20%	50V	C852	1-123-332-00	(E77ESD)ELECT	47MF	20%	16V
C739	1-136-153-00	(E77ESD)FILM	0.01MF	5%	50V	C853	1-123-334-00	(E77ESD)ELECT	220MF	20%	25V
C740	1-123-356-00	(E77ESD)ELECT	10MF	20%	50V	C854	1-123-334-00	(E77ESD)ELECT	220MF	20%	25V
C741	1-136-153-00	(E77ESD)FILM	0.01MF	5%	50V	C855	1-136-233-11	(E77ESD)FILM	0.0047MF	5%	100V
C742	1-136-153-00	(E77ESD)FILM	0.01MF	5%	50V	C856	1-130-848-00	(E77ESD)FILM	0.0082MF		100V
C743	1-123-356-00	(E77ESD)ELECT	10MF	20%	50V	C857	1-130-279-00	(E77ESD)FILM	0.0018MF		100V
C744	1-136-153-00	(E77ESD)FILM	0.01MF	5%	50V	C858	1-130-729-00	(E77ESD)FILM	0.0027MF		100V
C747	1-123-335-00	(E77ESD)ELECT	330MF	20%	25V	C859	1-130-729-00	(E77ESD)FILM	0.0027MF		100V
C748	1-123-335-00	(E77ESD)ELECT	330MF	20%	25V	C860	1-107-169-00	(E77ESD)MICA	100PF		100V
C749	1-123-335-00	(E77ESD)ELECT	330MF	20%	25V	C861	1-130-475-00	(E77ESD)MYLAR	0.0022MF	5%	50V
C750	1-123-335-00	(E77ESD)ELECT	330MF	20%	25V	C862	1-123-373-00	(E77ESD)ELECT	47MF	20%	63V
C751	1-123-369-00	(E77ESD)ELECT	4.7MF	20%	50V	C863	1-109-621-00	(E77ESD)MICA	220PF	5%	100V
C759	1-136-153-00	(E77ESD)FILM	0.01MF	5%	50V	C864	1-123-356-00	(E77ESD)ELECT	10MF	20%	50V
C760	1-123-356-00	(E77ESD)ELECT	10MF	20%	50V	C865	1-136-153-00	(E77ESD)FILM	0.01MF	5%	50V
C761	1-136-153-00	(E77ESD)FILM	0.01MF	5%	50V	C866	1-123-333-00	(E77ESD)ELECT	100MF	20%	16V
C762	1-136-153-00	(E77ESD)FILM	0.01MF	5%	50V	C867	1-124-124-00	(E77ESD)ELECT	220MF	20%	10V
C766	1-162-283-31	(E77ESD)CERAMIC	120PF	10%	50V	C868	1-123-332-00	(E77ESD)ELECT	47MF	20%	16V
C767	1-124-124-00	(E77ESD)ELECT	220MF	20%	10V	C869	1-123-332-00	(E77ESD)ELECT	47MF	20%	16V
C768	1-123-356-00	(E77ESD)ELECT	10MF	20%	50V	C951	1-124-477-11	(E77ESD)ELECT	47MF		16V
C769	1-136-153-00	(E77ESD)FILM	0.01MF	5%	50V	C952	1-124-477-11	(E77ESD)ELECT	47MF		16V
C770	1-123-356-00	(E77ESD)ELECT	10MF	20%	50V	C953	1-124-473-11	(E77ESD)ELECT	1000MF		10V
C771	1-136-153-00	(E77ESD)FILM	0.01MF	5%	50V	C954	1-124-473-11	(E77ESD)ELECT	1000MF	20%	10V
C772	1-136-153-00	(E77ESD)FILM	0.01MF	5%	50V	C955	1-124-477-11	(E77ESD)ELECT	47MF	20%	16V
C773	1-124-124-00	(E77ESD)ELECT	220MF	20%	10V	C956	1-124-477-11	(E77ESD)ELECT	47MF	20%	16V
C774	1-136-153-00	(E77ESD)FILM	0.01MF	5%	50V	C957	1-124-473-11	(E77ESD)ELECT	1000MF	20%	
C775	1-123-356-00	(E77ESD)ELECT	10MF	20%	50V	C958	1-124-473-11	(E77ESD)ELECT	1000MF	20%	
C776	1-123-356-00	(E77ESD)ELECT	10MF	20%	50V	C959	1-123-356-00	(E77ESD)ELECT	10MF	20%	
C777 C778 C779	1-136-169-00 1-136-169-00 1-136-169-00	(E77ESD)FILM (E77ESD)FILM (E77ESD)FILM	0.22MF 0.22MF 0.22MF	5% 5% 5%	50V 50V 50V	C960 C961 C963	1-123-356-00 1-124-477-11 1-124-477-11	(E77ESD)ELECT (E77ESD)ELECT (E77ESD)ELECT	10MF 47MF 47MF		16V 16V 16V 400V
C781 C790 C791	1-162-282-31 1-126-103-11 1-126-103-11	(E77ESD)CERAMIC (E77ESD)ELECT (E77ESD)ELECT	100PF 470MF 470MF	10% 20% 20%	50V 16V 16V	C992 Æ		(G-AEP)FILM (US)FILM	0.1MF 0.1MF		250Y 125Y
C792 C793 C794	1-162-218-31 1-136-153-00 1-162-219-31	(E77ESD)CERAMIC (E77ESD)FILM (E77ESD)CERAMIC	62PF 0.01MF 68PF	5% 5% 5%	50V 50V 50V	CNJ951	Å1-526-751-00 Å1-526-883-00 Å1-526-988-11	(UK)	UTLET, AC		
C795 C796 C797	1-161-377-00 1-161-379-00 1-161-379-00	(E77ESD)CERAMIC (US,G-AEP)CERAMIC (US,G-AEP)CERAMIC	0.0047MF 0.01MF 0.01MF	20% 30% 30%	50V 16V 16V	CN113	*1-562-327-00 *1-562-327-00 *1-562-249-00	(E77ESD)SOCKET, SOCKET, CONNECTOR 3 SOCKET, CONNECTOR 4	P	3P	
C798 C801 C802	1-161-379-00 1-123-332-00 1-123-332-00	(US,G-AEP)CERAMIC (E77ESD)ELECT (E77ESD)ELECT	0.01MF 47MF 47MF	30% 20% 20%	16V 16V 16V	CN116	*1-562-327-00 *1-562-327-00 *1-562-327-00	SOCKET, CONNECTOR 3 SOCKET, CONNECTOR 3 (E77ESD)SOCKET,	P	3 P	
C803 C804 C805	1-123-334-00 1-123-334-00 1-136-233-11	(E77ESD)ELECT (E77ESD)ELECT (E77ESD)FILM	220MF 220MF 0.0047MF	20% 20% 5%	25V 25V 100V		The component by shading an critical for Replace only	d mark <u>A</u> are   une tra safety.     critiqu	nposants id ume et une u ues pour la remplacer	marque se⊂ur	e∆ sont ^ité.

critical for safety.
Replace only with part
number specified.

Les composants identifies par une trame et une marque A sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

#### ELECTRICAL PARTS

Ref.No.	Part No.	Description
CN203	*1-562-327-00 *1-562-249-00 *1-562-249-00	SOCKET, CONNECTOR 3P SOCKET, CONNECTOR 4P SOCKET, CONNECTOR 4P
CN303	*1-562-249-00 *1-562-249-00 *1-562-249-00	SOCKET, CONNECTOR 4P SOCKET, CONNECTOR 4P SOCKET, CONNECTOR 4P
CN306	*1-562-249-00 *1-562-327-00 *1-562-327-00	SOCKET, CONNECTOR 4P SOCKET, CONNECTOR 3P SOCKET, CONNECTOR 3P
CN405	*1-562-327-00 *1-562-327-00 *1-562-327-00	(E77ESD)SOCKET, CONNECTOR 3P SOCKET, CONNECTOR 3P SOCKET, CONNECTOR 3P
CN501	*1-562-327-00 *1-562-327-00 *1-562-327-00	SOCKET, CONNECTOR 3P SOCKET, CONNECTOR 3P SOCKET, CONNECTOR 3P
CN617	*1-562-327-00 *1-562-327-00 *1-562-327-00	SOCKET, CONNECTOR 3P SOCKET, CONNECTOR 3P SOCKET, CONNECTOR 3P
	*1-562-327-00 *1-562-327-00	SOCKET, CONNECTOR 3P SOCKET, CONNECTOR 3P
CNP103	1*1-564-507-11 3*1-564-506-11 4*1-564-506-11	PLUG, CONNECTOR 4P PLUG, CONNECTOR 3P PLUG, CONNECTOR 3P
CNP106	5*1-564-506-11 5*1-564-505-11 7*1-564-505-31	(E77ESD)PLUG, CONNECTOR 3P PLUG, CONNECTOR 2P PLUG, CONNECTOR 2P
CNP109	3*1-564-506-11 9*1-564-506-11 9*1-564-506-11	PLUG, CONNECTOR 3P PLUG, CONNECTOR 3P PLUG, CONNECTOR 3P
CNP151	1*1-564-506-11 1*1-564-507-41 2*1-564-507-21	PLUG, CONNECTOR 3P PLUG, CONNECTOR 4P PLUG, CONNECTOR 4P
CNP154	3*1-564-507-11 1*1-564-507-31 5*1-564-505-11	PLUG, CONNECTOR 4P PLUG, CONNECTOR 4P PLUG, CONNECTOR 2P
CNP158	7*1-564-507-21 3*1-564-505-21 9*1-564-505-31	PLUG, CONNECTOR 4P PLUG, CONNECTOR 2P PLUG, CONNECTOR 2P
CNP201	0*1~564~505~21 1*1~564~506~11 2*1~564~506~11	PLUG, CONNECTOR 2P PLUG, CONNECTOR 3P PLUG, CONNECTOR 3P
CNP402	1*1-564-506-11 2*1-564-505-41 1*1-564-509-11	PLUG, CONNECTOR 3P PLUG, CONNECTOR 2P PLUG, CONNECTOR 6P
CNP603	2*1-564-506-11 3*1-564-508-11 3*1-564-505-11	PLUG, CONNECTOR 3P PLUG, CONNECTOR 5P PLUG, CONNECTOR 2P
CNP6O6	5*1-564-505-41 5*1-564-505-11 7*1-564-342-11	PLUG, CONNECTOR 2P PLUG, CONNECTOR 2P PIN, CONNECTOR 8P
CNP609	3*1-564-666-11 9*1-564-666-11 0*1-564-505-31	PIN, CONNECTOR 10P PIN, CONNECTOR 10P PLUG, CONNECTOR 2P
CNP613	1*1-564-506-11 3*1-564-505-31 4*1-564-505-11	PLUG, CONNECTOR 3P PLUG, CONNECTOR 2P PLUG, CONNECTOR 2P

#### ELECTRICAL PARTS

ELECTRIC	AL PARIS
Ref.No. Part No.	Description
CNP691*1-564-506-11 CNP701*1-564-510-11 CNP702*1-564-505-11	PLUG, CONNECTOR 3P (E77ESD)PLUG, CONNECTOR 7P (E77ESD)PLUG, CONNECTOR 2P
CNP703*1-564-505-31 CNP704*1-564-505-21 CNP705*1-564-505-41	(E77ESD)PLUG, CONNECTOR 2P (E77ESD)PLUG, CONNECTOR 2P (E77ESD)PLUG, CONNECTOR 2P
CNP706*1-564-506-11 CNP707*1-564-506-11 CNP708*1-564-506-11	(E77ESD)PLUG, CONNECTOR 3P (E77ESD)PLUG, CONNECTOR 3P (E77ESD)PLUG, CONNECTOR 3P
D101 8-719-910-62 D102 8-719-940-76 D103 8-719-940-76	DIODE HZ6A2L DIODE 1SS132 DIODE 1SS132
D151 8-719-910-62 D401 ≜8-719-230-02 D402 ≜8-719-230-02	D10DE HZ6A2L D10DE 30DF2 D10DE 30DF2
D403 8-719-902-22 D404 8-719-902-83 D405 在 9-982-270-01	DIODE HZ22-2L DIODE HZ18-3 (E77ESD)DIODE S2VB40
D406 A9-982-270-01 D451 A8-719-230-02 D452 A8-719-230-02	0100E S2YB40 D100E 300F2 D100E 300F2
D453 8-719-902-22 D454 8-719-902-83 D501 8-719-940-76	DIODE HZ22-2L DIODE HZ18-3 DIODE 1SS132
D502 8-719-940-76 D503 8-719-940-76	DIODE 1SS132 DIODE 1SS132
D504 8-719-940-76	DIODE 1SS132
0504 8-719-940-76 0601 \$\text{A} 8-719-200-77 0602 \$\text{A} 8-719-200-77	DIODE 155132  DIODE 10E2N DIODE 10E2N
0504 8-719-940-76 0601 A8-719-200-77 0602 A8-719-200-77 0603 A8-719-200-77 0604 A8-719-200-77 0605 8-719-940-76	DIODE 1SS132  DIODE 1OE2N DIODE 1OE2N DIODE 1OE2N DIODE 1OE2N DIODE 1SS132
0504 8-719-940-76  0601 A8-719-200-77  0602 A8-719-200-77  0603 A8-719-200-77  0604 A8-719-200-77  0605 8-719-940-76  0607 8-719-300-82  0608 8-719-940-76  0609 8-719-940-76	DIODE 1SS132  DIODE 1OE2N DIODE 1OE2N DIODE 1OE2N DIODE 1OE2N DIODE 1SS132 DIODE SEL2213C  DIODE 1SS132 DIODE 1SS132 DIODE 1SS132
0504 8-719-940-76  0601 A 8-719-200-77  0602 A 8-719-200-77  0603 A 8-719-200-77  0604 A 8-719-200-77  0605 8-719-940-76  0607 8-719-300-82  0608 8-719-940-76  0609 8-719-940-76  0610 8-719-200-77  0611 8-719-940-76  0612 8-719-301-39	DIODE 1SS132  DIODE 1OE2N DIODE 1OE2N DIODE 1OE2N DIODE 1OE2N DIODE 1SS132 DIODE SEL2210S
0504 8-719-940-76  0601 A8-719-200-77  0602 A8-719-200-77  0603 A8-719-200-77  0604 A8-719-200-77  0605 8-719-940-76  0607 8-719-300-82  0608 8-719-940-76  0610 8-719-200-77  0611 8-719-200-77  0611 8-719-301-39  0614 8-719-301-39  0614 8-719-301-39  0615 8-719-301-39	DIODE 1SS132  DIODE 10E2N DIODE 10E2N DIODE 10E2N DIODE 1SS132 DIODE 1SS132 DIODE 1SS132 DIODE 1SS132 DIODE 1SS132 CHORE 1SS132 DIODE 1SS132 DIODE 1SS132 DIODE 1SS132 CE77ESD)DIODE SEL2210S-D (E77ESD)DIODE SEL221OS-D (E77ESD)DIODE SEL221OS-D (E77ESD)DIODE SEL221OS-D
0504 8-719-940-76  0601 A8-719-200-77  0602 A8-719-200-77  0603 A8-719-200-77  0604 A8-719-200-77  0605 8-719-940-76  0607 8-719-300-82  0608 8-719-940-76  0610 8-719-200-77  0611 8-719-200-77  0611 8-719-200-77  0612 8-719-301-39  0614 8-719-301-39  0615 8-719-301-39  0616 8-719-301-39  0617 8-719-301-39  0617 8-719-301-39  0618 8-719-301-39  0618 8-719-301-39	DIODE 1SS132  DIODE 10E2N DIODE 10E2N DIODE 10E2N DIODE 1SS132 DIODE 1SS132 DIODE 1SS132 DIODE 1SS132 DIODE 1SS132 CETTESD)DIODE SEL2210S-D (E77ESD)DIODE SEL2210S-D (E77ESD)DIODE SEL2210S-D (E77ESD)DIODE SEL2210S-D DIODE SEL2210S-D DIODE SEL2210S-D DIODE SEL221OS-D DIODE SEL221OS-D DIODE SEL221OS-D DIODE SEL221OS-D DIODE SEL221OS-D
D504         8-719-940-76           D601         A 8-719-200-77           D602         A 8-719-200-77           D603         A 8-719-200-77           D604         A 8-719-200-77           D605         8-719-940-76           D607         8-719-940-76           D609         8-719-940-76           D610         8-719-200-77           D611         8-719-301-39           D612         8-719-301-39           D613         8-719-301-39           D614         8-719-301-39           D615         8-719-301-39           D616         8-719-301-39           D617         8-719-301-39           D618         8-719-301-39           D619         8-719-301-39           D620         8-719-301-39           D621         8-719-301-39           D621         8-719-301-39	DIODE 1SS132  DIODE 1OE2N DIODE 1OE2N DIODE 1OE2N DIODE 1SS132 DIODE 1SS132 DIODE 1SS132 DIODE 1SS132 DIODE 1SS132 C(E77ESD)DIODE SEL2210S-D (E77ESD)DIODE SEL2210S-D (E77ESD)DIODE SEL2210S-D DIODE SEL2210S-D DIODE SEL2210S-D DIODE SEL2210S-D DIODE SEL221OS-D
D504         8-719-940-76           D601         A 8-719-200-77           D602         A 8-719-200-77           D603         A 8-719-200-77           D604         A 8-719-200-77           D605         8-719-940-76           D607         8-719-940-76           D609         8-719-940-76           D610         8-719-200-77           D611         8-719-301-39           D612         8-719-301-39           D613         8-719-301-39           D614         8-719-301-39           D615         8-719-301-39           D616         8-719-301-39           D617         8-719-301-39           D618         8-719-301-39           D620         8-719-301-39           D621         8-719-301-39           D622         8-719-301-39           D623         8-719-301-39           D624         8-719-301-39           D624         8-719-301-39	D100E 1SS132  D100E 10E2N D100E 10E2N D100E 10E2N  D100E 1SS132 D100E 1SS132 D100E 1SS132 D100E 1SS132 D100E 1SEL2213C  D100E 1SS132 (E77ESD)D10DE SEL2210S-D (E77ESD)D10DE SEL2210S-D (E77ESD)D10DE SEL2210S-D D100E SEL2210S-D

The components identified by shading and mark <u>A</u> are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

ELECTRI	CAL PARTS	ELECTRICAL PARTS				
Ref.No. Part No.	Description	Ref.No.	Part No.	Description		
D633 8-719-301-39	DIODE SEL2210S-D DIODE SEL2210S-D DIODE SEL2210S-D	IC707	8-759-918-71	(E77ESD)IC TC74HC123P (E77ESD)IC CX23065 (E77ESD)IC SN74LS624N		
D636 8-719-303-00	DIODE SEL2210S-D DIODE SEL2510C DIODE SEL2510C	IC710	8-759-000-99	(E77ESD)IC TC74HC393P (E77ESD)IC MC74HC74N (E77ESD)IC TL072ACP		
D639 8-719-301-39	DIODE SEL2210S-D DIODE SEL2210S-D (E77ESD)DIODE SEL2210S-D	IC713	8-759-906-24	(E77ESD)IC CX23065 (E77ESD)IC SN74LS624N (E77ESD)IC MC74HC112N		
D642 8-719-303-00	(E77ESD)DIODE SEL221OS-D (E77ESD)DIODE SEL251OC (E77ESD)DIODE SEL251OC	10716	8-759-203-40 8-759-202-11 8-759-202-74	(E77ESD)IC TC74HC393P (E77ESD)IC TC74HC00P (E77ESD)IC TC74HC04P		
D645 8-719-940-76	(E77ESD)DIODE SEL2510C DIODE 1SS132 DIODE 1SS132	IC719	8-752-322-31 8-759-939-35 8-759-000-99	(E77ESD)IC CXD1076P (E77ESD)IC CXD1088Q (E77ESD)IC MC74HC74N		
D652 8-719-940-76	DIODE 1SS132 DIODE 1SS132 DIODE 1SS132	10801	8-759-938-46	(E77ESD)IC MC74HC74N (E77ESD)IC PCM56P-JS (E77ESD)IC NJM5532D-D		
	(E77ESD)DIODE 1SS132 (E77ESD)DIODE 1SS132 (E77ESD)DIODE 1SS132	IC851	8-759-938-46	(E77ESD)IC NJM5532D-D (E77ESD)IC PCM56P-JS (E77ESD)IC NJM5532D-D		
D705 8-719-940-76	(E77ESD)DIODE HZ6C2L (E77ESD)DIODE 1SS132 (E77ESD)DIODE 1SS132	IC951 IC952	8-759-601-43 8-759-801-61	(E77ESD)IC NJM5532D-D (E77ESD)IC M4066BP (E77ESD)IC LA722O (E77ESD)IC LA722O		
F951 A. 1-532-740-11	(US,Canadian)FUSE, GLASS TUBE (1A)	J101		JACK, PIN 2P (PHONO)		
IC101 8-759-701-21	IC NJM5532D-D	J102		JACK, PIN 6P (TUNER/CD/AUX)		
	(G-AEP)IC M5220P (US,Canadian,AEP,UK,E)IC NJM5532D-D	J103	1-566-883-11	JACK, PIN 6P (TAPE 1/TAPE 1 REC/TAPE 2 REC)		
IC401 8-759-602-31		J104	1-566-883-11	JACK, PIN 6P (TAPE 2/VIDEO 1 OUT/VIDEO 2 IN)		
	(E77ESD)IC M5F78M12 IC NJM7812FA	J105	1-566-883-11			
1C406 A8-759-701-56	IC M5F7805 (E77ESD)IC NJM78M05FA (E77ESD)IC NJM78M05FA	J106 J107		(VIDEO 2 IN/VIDEO 3 IN/VIDEO 2 OUT) JACK, PIN 4P (OUTPUT 1/2) (E77ESD)JACK, PIN 2P (DAT ANALOGUE REC)		
TC453 A 8-759-701-65	(E77ESD)IC NJM79M12FA (E77ESD)IC NJM79M05FA (E77ESD)IC NJM79M05FA	J108 J109 J110	1-566-892-11	JACK, PIN 2P (ADAPTOR OUT) JACK, PIN 2P (ADAPTOR IN) JACK, LARGE TYPE (HEADPHONES)		
IC501 8-759-601-43 IC502 8-759-801-61		J501	1-566-893-11	JACK, PIN 2P (YIDEO 1 OUT/MONITOR VIDEO OUT)		
10601 AB-759-701-56	IC NJM78MOSFA	J502 J503	1-566-893-11 1-566-893-11	JACK, PIN 2P (VIDEO 1 IN/VIDEO 2 OUT) JACK, PIN 2P (VIDEO 3 IN/VIDEO 2 IN)		
10602 8-759-240-93 10603 8-759-113-52	IC UPD75104CW-078	J551	1-566-846-11	(E77ESD)CONNECTOR, (S) TERMINAL 4P (S VIDEO 1 IN)		
10604 8-759-601-03		J552	1-566-846-11	(E77ESD)CONNECTOR, (S) TERMINAL 4P (S VIDEO 1 OUT)		
10605 8-759-601-03 10606 8-759-601-03 10607 8-759-008-95	IC M54566P	J553	1-566-846-11	(E77ESD)CONNECTOR, (S) TERMINAL 4P (S VIDEO 2 IN)		
IC608 8-759-600-68 IC609 8-759-600-68	IC M54562P	J554	1-566-846-11	(E77ESD)CONNECTOR, (S) TERMINAL 4P (MONITOR S VIDEO OUT)		
10610 48-759-600-24		J701 J702	*1-563-079-11 1-507-898-31	(E77ESD)JACK, PIN 1P (DIGITAL IN 1) (E77ESD)JACK, PIN 2P		
IC611 8-741-131-70 IC701 8-759-202-11 IC702 8-759-202-11	(E77ESD)IC TC74HCOOP	J703		(DIGITAL IN 2/DAT DIGITAL IN) (E77ESD)JACK, PIN 1P(DAT DIGITAL OUT)		
IC703 8-759-202-74 IC704 8-759-001-26 IC705 8-759-202-24	(E77ESD)IC MC74HC112N	L201 L202 L251	1-413-101-00 1-413-101-00 1-413-101-00	(G-AEP)COIL, INPUT (G-AEP)COIL, INPUT (G-AEP)COIL, INPUT		

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et une marque A sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

ELECTRIC	CAL PARTS		ELECTRIC	AL PARTS	
Ref.No. Part No.	Description	Ref.No.	Part No.	Description	
L401 A 1-424-026-11	(G-AEP)COIL, INPUT COIL, LINE FILTER (E77ESD)COIL, LINE FILTER	0451 0452 0501	À 8-729-118-53 ·	TRANSISTOR 2SK246-GI TRANSISTOR 2SA985-P TRANSISTOR 2SC945-P	
L601	COIL, LINE FILTER (E77ESD)MICRO INDUCTOR 4.7UH (E77ESD)MICRO INDUCTOR 4.7UH	Q502 Q503 Q504	8-729-194-57 8-729-194-57 8-729-806-28	TRANSISTOR 2SC945-P TRANSISTOR 2SC945-P TRANSISTOR 2SC3402	
L703 1-408-559-00 L704 1-408-559-00 L705 1-408-559-00	(E77ESD)MICRO INDUCTOR 4.7UH (E77ESD)MICRO INDUCTOR 4.7UH (E77ESD)MICRO INDUCTOR 4.7UH	Q601 Q603 Q604	8-729-806-28 8-729-806-28 8-729-154-82	TRANSISTOR 2SC3402 TRANSISTOR 2SC3402 TRANSISTOR 2SB548-R	
L706 1-408-559-00 L707 1-408-559-00 L708 1-408-559-00	(E77ESD)MICRO INDUCTOR 4.7UH (E77ESD)MICRO INDUCTOR 4.7UH (E77ESD)MICRO INDUCTOR 4.7UH	Q691 Q692 Q701	8-729-600-27 8-729-806-28 8-729-204-83	TRANSISTOR 2SC634SP TRANSISTOR 2SC3402 (E77ESD)TRANSISTO	OR 2SA1048-GR
L709 1-408-104-00 L710 1-408-559-00 L711 1-408-559-00	(E77ESD)MICRO INDUCTOR 1MMH (E77ESD)MICRO INDUCTOR 4.7UH (E77ESD)MICRO INDUCTOR 4.7UH	Q702 Q703 Q704	8-729-806-28 8-729-159-01 8-729-806-20	(E77ESD)TRANSISTO (E77ESD)TRANSISTO (E77ESD)TRANSISTO	DR 2SA1348
L712 1-408-104-00 L713 1-408-559-00 L714 1-408-559-00	(E77ESD)MICRO INDUCTOR 1MMH (E77ESD)MICRO INDUCTOR 4.7UH (E77ESD)MICRO INDUCTOR 4.7UH	Q705 Q951 Q952	8-729-159-01 8-729-194-57 8-729-194-57	(E77ESD)TRANSISTO (E77ESD)TRANSISTO (E77ESD)TRANSISTO	OR 2SC945-P
L715 1-408-559-00 L716 1-408-104-00 L717 1-408-559-00	(E77ESD)MICRO INDUCTOR 4.7UH (E77ESD)MICRO INDUCTOR 1MMH (E77ESD)MICRO INDUCTOR 4.7UH	Q953 Q954 Q955 Q956	8-729-194-57 8-729-194-57 8-729-194-57 8-729-194-57	(E77ESD)TRANSIST( (E77ESD)TRANSIST( (E77ESD)TRANSIST( (E77ESD)TRANSIST(	DR 2SC945-P DR 2SC945-P
L718 1-408-559-00 L719 1-408-080-00 L721 1-408-559-00 L722 1-408-559-00	(E77ESD)MICRO INDUCTOR 4.7UH (E77ESD)MICRO INDUCTOR 100UH (E77ESD)MICRO INDUCTOR 4.7UH (E77ESD)MICRO INDUCTOR 4.7UH	R101 R102 R103	1-247-713-11 1-247-713-11 1-247-713-11	CARBON 1K CARBON 1K	5% 1/4W 5% 1/4W 5% 1/4W
	(US)TRANSFORMER, LINE FILTER (LFT) (G-AEP)TRANSFORMER, LINE FILTER	R104 R105 R106	1-247-713-11 1-247-713-11 1-247-700-11	CARBON 1K (E77ESD)CARBON CARBON 100	5% 1/4W 1K 5% 1/4W 5% 1/4W
Q101 8-729-202-67 Q103 8-729-104-18 Q104 8-765-640-10	TRANSISTOR 2SC3514	R107 R108 R109	1-249-465-11 1-247-721-11 1-247-713-11	CARBON 4.7K	5% 1/4W 5% 1/4W 5% 1/4W
The state of the s	TRANSISTOR 2SA1138 TRANSISTOR 2SC2676	R110 R111 R112	1-246-545-00 1-247-711-11 1-247-723-11	CARBON 680	5% 1/4W 5% 1/4W 5% 1/4W
Q108 48-729-167-62 Q109 48-729-104-18 Q110 48-729-104-91	TRANSISTOR 2SC3514 TRANSISTOR 2SA1383	R113 R114 R115	1-247-725-11 1-249-556-11 1-249-895-11	CARBON 10K CARBON 1.5K CARBON 68	5% 1/4W 5% 1/4W 1% 1/4W
0153 8-729-104-18 0154 8-765-640-10	TRANSISTOR 2SK246-GR3 TRANSISTOR 2SC3514 TRANSISTOR 2SK244	R116 R117 R118	1-249-895-11 1-247-706-11 1-249-556-11	CARBON 330	1% 1/4W 5% 1/4W 5% 1/4W
Q156	ATTAIL BUT IN THE SECOND OF TH	R119 R120 R121	1-249-556-11 1-247-711-11 1-247-146-00		5% 1/4W 5% 1/4W 5% 1/4W
Q159 A 8-729-104-18	TRANSISTOR 2SC2676 TRANSISTOR 2SC3514 TRANSISTOR 2SA1383	R122 R123 R124	1-249-556-11 1-249-556-11 1-259-014-11	CARBON 1.5K CARBON 1.5K CARBON 4.7K	5% 1/4W 5% 1/4W 1% 1/2W
Q2O1 8-729-214-71 Q2O2 8-729-214-71 Q2O3 8-729-201-56	TRANSISTOR 2SK147 TRANSISTOR 2SK147 TRANSISTOR 2SK246-GR2	R125 R126 R127	A 1-249-541-11 1-249-641-11 1-249-641-11		5% 1/2W 5% 1/2W 5% 1/2W
0204 8-729-168-22 0205 8-729-194-57 0251 8-729-214-71		R128 R129 R130	1-249-641-11 1-249-641-11 1-249-604-11	CARBON 47	5% 1/2W 5% 1/2W 5% 1/4W
Q254 8-729-168-22	TRANSISTOR 2SK147 TRANSISTOR 2SK246-GR2 TRANSISTOR 2SC2682	R131 R132 R133	1-249-590-11 1-249-590-11 1-249-556-11	CARBON 39K CARBON 39K CARBON 1.5K	5% 1/4W 5% 1/4W 5% 1/4W
0401 8-729-201-56	TRANSISTOR 2SC945-P TRANSISTOR 2SK246-GR2 TRANSISTOR 2SC2275A	R134 R135 R136	1-247-700-11 1-249-469-11 1-247-152-00		5% 1/4W 5% 1/4W 5% 1/4W
				•	

The components identified by shading and mark A are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et une marque A sont critiques pour la sécurit€.
Ne les remplacer que par une pièce portant le numéro spécifié.

	ELECTRIC	AL PARTS						ELECTRIC	AL PARTS				
Ref.No.	Part No.	Description					Ref.No.	Part No.	Description				
R137 R138 R139	1-259-025-11 1-246-529-00 1-247-702-11		220K	1% 5% 150	1/2W 1/4W 5% 1/4	W	R211 R212 R214	1-247-128-00 1-249-874-11 1-249-844-11	CARBON	750 1M 56K	5% 1% 1%	1/4W 1/2W 1/2W	
R140 R141 R142	1-247-713-11 1-247-713-11 1-249-595-11		ON 1K 52K	1K 5% 5%	5% 1/4 1/4W 1/4W	W	R216 R217 R218	1-249-818-11 1-249-777-11 1-206-458-00		4.7K 91 6.2	1% 1% 5%	1/2W 1/2W 1/3W	
R151 R152 R153	1-247-713-11 1-247-713-11 1-247-713-11	CARBON	IK IK IK	5% 5% 5%	1/4W 1/4W 1/4W		R219 R220 R221	1-247-704-11 1-247-706-11 1-247-706-11	CARBON (G-AEP)CAR (G-AEP)CAR		5% 330 330		1/4W 1/4W
R154 R155 R156	1-247-713-11 1-247-713-11 1-247-700-11	(E77ESD)CARE	LK 30 N 100	5% 1K 5%	1/4W 5% 1/4 1/4W	W	R251 R252 R253	1-247-706-11 1-247-700-11 1-247-713-11	CARBON	330 100 1K	5% 5% 5%	1/4W 1/4W 1/4W	
R157 R158 R159	1-249-465-11 1-247-721-11 1-247-713-11	CARBON	17K 1.7K IK	5% 5% 5%	1/4W 1/4W 1/4W		R254 R255 R256	1-249-465-11 1-247-721-11 1-247-704-11	CARBON	47K 4.7K 220	5% 5% 5%	1/4W 1/4W 1/4W	
R160 R161 R162	1-246-545-00 1-247-711-11 1-247-723-11	CARBON 6	LM 580 5.8K	5% 5% 5%	1/4W 1/4W 1/4W		R257 R258 R259	1-249-518-11 1-247-708-11 1-247-128-00	CARBON	39 470 750	5% 5% 5%	1/4W 1/4W 1/4W	
R163 R164 R165	1-247-725-11 1-249-556-11 1-249-895-11	CARBON 1		5% 5% 1%	1/4W 1/4W 1/4W		R260 R261 R262	1-247-700-11 1-247-128-00 1-249-874-11	CARBON	100 750 1M	5% 5% 1%	1/4W 1/4W 1/2W	
R166 R167 R168	1-249-895-11 1-247-706-11 1-249-556-11	CARBON 3	30	1% 5% 5%	1/4W 1/4W 1/4W		R264 R266 R267	1-249-844-11 1-249-818-11 1-249-777-11	CARBON	56K 4.7K 91	1% 1% 1%	1/2W 1/2W 1/2W	
R169 <b>R170 A</b> R171	1-249-556-11 1-247-711-11 1-247-146-00	CARBON 6	.5K 80 -	5%	1/4W 1/4W 1/4W		R268 R269 <b>R291 <i>A</i></b>	1-206-458-00 1-247-704-11 1-247-735-11	CARBON	6.2 220 <b>47</b>	5% 5%	1/3W 1/4W 1/2W	F
R172 R173 R174	1-249-556-11 1-249-556-11 1-259-014-11	CARBON 1		5%	1/4W 1/4W 1/2W		<b>R292 <i>d</i></b> R270 R271	1-247-735-11 1-247-706-11 1-247-706-11	CARBON (G-AEP)CAR (G-AEP)CAR	BON	<b>5%</b> 330 330	5%	1/4W 1/4W
R175 A R176 R177	1-249-641-11 1-249-641-11 1-249-641-11	CARBON 4	<b>7</b> 7 7	<b>5%</b> 5% 5%	1/2W 1/2W 1/2W		R301 R302 R303	1-202-727-00 1-202-727-00 1-247-725-11	CARBON CARBON CARBON	4.7M 4.7M 10K	5% 5% 5%	1/3W 1/3W 1/4W	
	1-249-641-11 1-249-641-11 1-249-604-11	CARBON 4		5%	1/2W 1/2W 1/4W		R3 04 R3 05 R3 06	1-202-727-00 1-202-727-00 1-249-466-11	CARBON	4.7M 4.7M 56K		1/3W 1/3W 1/4W	
R181 R182 R183	1-249-590-11 1-249-590-11 1-249-556-11	CARBON 3		5%	1/4W 1/4W 1/4W		R307 R308 R309	1-202-727-00 1-247-722-11 1-247-717-11	CARBON	4.7M 5.6K 2.2K	5%	1/3W 1/4W 1/4W	
R184 R185 R186	1-247-700-11 1-249-469-11 1-247-152-00	CARBON 1	00 00K • 2K	5%	1/4W 1/4W 1/4W		R310 R351 R352	1-202-727-00 1-202-727-00 1-202-727-00	CARBON	4.7M 4.7M 4.7M	5%	1/3W 1/3W 1/3W	
R187 R188 R189			20K	5%	1/2W 1/4W 5% 1/4W	4	R353 R354 R355	1-247-725-11 1-202-727-00 1-202-727-00	CARBON	10K 4.7M 4.7M		1/4W 1/3W 1/3W	
R190 R191 R192	1-247-713-11 1-247-713-11 1-249-595-11		K		5% 1/4W 1/4W 1/4W	W	R3 56 R3 57 R3 58	1-249-466-11 1-202-727-00 1-247-722-11	CARBON	56K 4.7M 5.6K	5% 5% 5%	1/4W 1/3W 1/4W	
R201 R202 R203	1-247-706-11 1-247-700-11 1-247-713-11	CARBON 1	.00	5%	1/4W 1/4W 1/4W		R359 R360 R402	1-247-717-11 1-202-727-00 1-247-719-11	CARBON	2.2K 4.7M 3.3K	5% 5% 5%	1/4W 1/3W 1/4W	
R204 R205 R206	1-249-465-11 1-247-721-11 1-247-704-11	CARBON 4	.7K	5%	1/4W 1/4W 1/4W		R403 R404 R405	1-247-704-11 1-249-460-11 1-247-719-11	CARBON	220 15K 3.3K	5% 5% 5%	1/4W 1/4W 1/4W	
R207 R208 R209 R210	1-249-518-11 1-247-708-11 1-247-128-00 1-247-700-11	CARBON 4 CARBON 7	70 50	5% 5%	1/4W 1/4W 1/4W 1/4W		R452 R453 R454	1-247-719-11 1-247-704-11 1-249-460-11	CARBON	3.3K 220 15K	5% 5%	1/4W 1/4W 1/4W	
KZIU	1 24/ /00-11	VARDON I	50	J 10	1/ TR	ı			· ·			::::::::::::::::::::::::::::::::::::::	

The components identified by shading and mark <u>A</u> are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et une marque A sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

	ELECTRICA	AL PARTS					ELECTRIC	AL PARTS			
Ref.No. Pa	rt No.	Description				Ref.No.	Part No.	Description			
R501 1-	215-394-00	CARBON CARBON CARBON	33 75 10K	5% 5% 5%	1/4W F 1/4W 1/4W	R634 R635 R636	1-249-417-11 1-249-417-11 1-249-417-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	1K 1K 1K	5% 5% 5%	1/4W 1/4W 1/4W
R504 1-	249-429-11	CARBON CARBON CARBON	75 10K 47	5% 5% 5%	1/4W 1/4W 1/4W	R637 R638 R639	1-249-417-11 1-249-417-11 1-249-417-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	1K 1K 1K	5% 5% 5%	1/4W 1/4W 1/4W
R507 1-3	249-414-11	CARBON CARBON CARBON	10K 560 75	5% 5% 5%	1/4W 1/4W 1/4W	R640 R641 R642	1-247-118-00 1-247-118-00 1-247-118-00	(E77ESD)CARBON (E77ESD)CARBON CARBON 300	300 300 5%	5% 5% 1/4W	1/4W 1/4W
R510 1-2	249-401-11	CARBON CARBON CARBON	10K 47 10K	5% 5% 5%	1/4W 1/4W 1/4W	R643 R644 R645	1-247-118-00 1-247-118-00 1-247-118-00	CARBON 300 CARBON 300 CARBON 300	5% 5% 5%	1/4W 1/4W 1/4W	
R513 1-3	249-401-11	CARBON CARBON CARBON	560 47 10K	5% 5% 5%	1/4W 1/4W 1/4W	R646 R647 R648	1-247-118-00 1-247-118-00 1-247-118-00	CARBON 300 CARBON 300 CARBON 300	5% 5% 5%	1/4W 1/4W 1/4W	
R516 1-	249-440-11	CARBON CARBON CARBON	560 82K 33K	5% 5% 5%	1/4W 1/4W 1/4W	R649 R650 R651	1-247-118-00 1-247-118-00 1-247-118-00	CARBON 300 CARBON 300 CARBON 300	5% 5% 5%	1/4W 1/4W 1/4W	
R519 1-3	249-423-11	CARBON CARBON CARBON	820 3.3K 5.6K	5% 5% 5%	1/4W 1/4W 1/4W	R652 R653 R654	1-247-118-00 1-247-118-00 1-247-118-00	CARBON 300 CARBON 300 (E77ESD)CARBON	5% 5% 300	1/4W 1/4W 5%	1/4W
R522 1-2	247-887-00	CARBON CARBON CARBON	3.3K 220K 10K	5% 5% 5%	1/4W 1/4W 1/4W	R655 R656 R657	1-247-707-11 1-247-707-11 1-247-707-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	390 390 390	5% 5% 5%	1/4W 1/4W 1/4W
R526 1-3	249-429-11	CARBON CARBON CARBON	10K 10K 10K	5% 5% 5%	1/4W 1/4W 1/4W	R658 R659 R660	1-249-429-11 1-249-429-11 1-249-433-11	CARBON 10K CARBON 10K CARBON 22K	5% 5% 5%	1/4W 1/4W 1/4W	
R601 1-3	249-430-11	CARBON CARBON CARBON	10K 12K 47K	5% 5% 5%	1/4W 1/4W 1/4W	R661 R662 R663	1-249-433-11 1-249-417-11 1-249-417-11	CARBON 22K CARBON 1K CARBON 1K	5% 5% 5%	1/4W 1/4W 1/4W	
R607 1-3	249-405-11	CARBON CARBON CARBON	560 100 1K	5% 5% 5%	1/4W 1/4W 1/4W	R691 R692 R693	1-249-429-11 1-249-429-11 1-249-425-11	CARBON 10K CARBON 10K CARBON 4.7K	5% 5% 5%	1/4W 1/4W 1/4W	
R610 1-7	249-417-11	CARBON CARBON CARBON	1K 1K 1K	5% 5% 5%	1/4W 1/4W 1/4W	R694 R701 R703	1-249-393-11 1-215-394-00 1-215-394-00	CARBON 10 (E77ESD)CARBON (E77ESD)CARBON	5% 75 75	1/4W 5% 5%	1/4W 1/4W
R613 1-3	249-417-11	CARBON	1K 1K 1K		1/4W 1/4W 1/4W	R705 R707 R708	1-215-394-00 1-249-429-11 1-249-419-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	75 10K 1.5K	5% 5% 5%	1/4W 1/4W 1/4W
R616 1-7	249-417-11 249-417-11 249-433-11		1K 1K 22K	5%	1/4W 1/4W 1/4W	R709 R710 R711	1-215-432-00 1-215-452-00 1-215-442-00	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	3K 20K 7.5K	5% 5% 5%	1/4W 1/4W 1/4W
R619 1-2	249-433-11	CARBON CARBON CARBON	22K 22K 22K	5%	1/4W 1/4W 1/4W	R712 R713 R714	1-249-429-11 1-249-425-11 1-247-723-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	10K 4.7K 6.8K	5% 5% 5%	1/4W 1/4W 1/4W
R622 1-2	249-441-11	CARBON	100K 100K 100K	5%	1/4W 1/4W 1/4W	R715 R716 R717	1-249-417-11 1-249-429-11 1-249-433-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	1K 10K 22K	5% 5% 5%	1/4W 1/4W 1/4W
R625 1-2	249-417-11	CARBON	100K 1K 1K	5%	1/4W 1/4W 1/4W	R718 R719 R720	1-249-433-11 1-249-433-11 1-249-429-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	22K 22K 10K	5% 5% 5%	1/4W 1/4W 1/4W
R628 1-3	249-417-11	CARBON	1K 1K 150		1/4W 1/4W 1/4W	R721 R722 R723	1-249-425-11 1-249-423-11 1-249-432-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	4.7K 3.3K 18K	5% 5% 5%	1/4W 1/4W 1/4W
R631 1-3	249-433-11	CARBON CARBON CARBON	1K 22K 1K	5% 5% 5%	1/4W 1/4W 1/4W	R725 R726 R727	1-215-491-00 1-249-423-11 1-249-437-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	820K 3.3K 47K	5% 5% 5%	1/4W 1/4W 1/4W

The components identified by shading and mark A are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et une marque sont critiques pour la sécuri té. Ne les remplacer que par une pièce portant le numéro spécifié.

	ELECTRICAL PARTS						ELECTRICAL PARTS				
Ref.No.	Part No.	Description				Ref.No.	Part No.	Description			
R728 R729 R730	1-215-440-00 1-215-448-00 1-249-429-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	6.2K 13K 10K	5% 5% 5%	1/4W 1/4W 1/4W	R969 R970 R971	1-249-401-11 1-249-429-11 1-249-414-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	47 10K 560	5% 5% 5%	1/4W 1/4W 1/4W
R731 R732 R733	1-215-476-00 1-215-476-00 1-249-429-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	200K 200K 10K	5% 5% 5%	1/4W 1/4W 1/4W	R972 R973 R974	1-249-401-11 1-249-429-11 1-249-414-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	47 10K 560	5% 5% 5%	1/4W 1/4W 1/4W
R734 R735 R736	1-249-429-11 1-249-435-11 1-249-413-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	10K 33K 470	5% 5% 5%	1/4W 1/4W 1/4W	R975 R976 R977	1-249-440-11 1-249-435-11 1-249-416-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	82K 33K 820	5% 5% 5%	1/4W 1/4W 1/4W
R737 R791 R792	1-249-407-11 1-215-398-00 1-215-394-00	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	150 110 75	5% 5% 5%	1/4W 1/4W 1/4W	R978 R979 R980	1-249-423-11 1-247-849-00 1-249-423-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	3.3K 5.6K 3.3K	5% 5% 5%	1/4W 1/4W 1/4W
R793 R794 R795	1-215-452-00 1-215-452-00 1-249-433-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	20K 20K 22K	5% 5% 5%	1/4W 1/4W 1/4W	R981 R982 R983	1-249-440-11 1-249-435-11 1-249-416-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	82K 33K 820	5% 5% 5%	1/4W 1/4W 1/4W
R796 R797 R798	1-249-433-11 1-215-452-00 1-249-433-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	22K 20K 22K	5% 5% 5%	1/4W 1/4W 1/4W	R984 R985 R986	1-249-423-11 1-247-849-00 1-249-423-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	3.3K 5.6K 3.3K	5% 5% 5%	1/4W 1/4W 1/4W
R799 R801 R802	1-249-437-11 1-247-757-11 1-247-757-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	47K 2.7K 2.7K	5% 5% 5%	1/4W 1/2W 1/2W	RV301	1-237-851-11 1-237-853-11 1-237-854-11	RES, VAR, CARBON 12 RES, VAR, CARBON 15 RES, VAR, CARBON 1M	OK/150	K (BA	ALANCE)
R803 R804 R805	1-247-716-11 1-246-545-00 1-249-679-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	1.8K 1M 1.8K	5% 5% 5%	1/4W 1/4W 1/2W	RV303 RV701	1-237-852-11 1-224-252-XX	RES, VAR, CARBON 25 (E77ESD)RES, ADJ			
R806 R807 R808	1-247-716-11 1-247-716-11 1-247-716-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	1.8K 1.8K 1.8K	5% 5% 5%	1/4W 1/4W 1/4W	RY102	1-515-614-11 1-515-614-11 1-515-614-11	(E77ESD)RELAY RELAY RELAY			
R809 R810 R851	1-247-739-11 1-249-616-11 1-247-757-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	100 470K 2.7K	5% 5% 5%	1/2W 1/4W 1/2W		1-515-614-11 1-515-614-11 1-515-614-11	RELAY RELAY RELAY			
R852 R853 R854	1-247-757-11 1-247-716-11 1-246-545-00	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	2.7K 1.8K 1M	5% 5% 5%	1/2W 1/4W 1/4W	RY108 RY109	1-515-614-11 1-515-614-11 1-515-614-11	RELAY RELAY RELAY			
R855 R856 R857	1-249-679-11 1-247-716-11 1-247-716-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	1.8K 1.8K 1.8K	5% 5% 5%	1/2W 1/4W 1/4W	RY111 RY112	1-515-614-11 1-515-614-11 1-515-614-11	RELAY RELAY RELAY			
R858 R859 R860	1-247-716-11 1-247-739-11 1-249-616-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	1.8K 100 470K	5% 5% 5%	1/4W 1/2W 1/4W	RY114 RY115	1-515-614-11 1-515-614-11 1-515-614-11	RELAY RELAY RELAY			
R951 R952 R953	1-215-394-00 1-249-429-11 1-249-429-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	75 10K 10K	5% 5% 5%	1/4W 1/4W 1/4W	RY117	1-515-614-11 1-515-614-11 1-515-614-11	RELAY RELAY RELAY			
R954 R955 R956	1-215-394-00 1-249-429-11 1-249-429-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	75 10K 10K	5% 5% 5%	1/4W 1/4W 1/4W	RY701	1-515-614-11 1-515-493-00 1-515-495-00 1-515-622-11	(E77ESD)RELAY RELAY (E77ESD)RELAY (E77ESD)RELAY			
R957 R958 R959	1-249-401-11 1-249-429-11 1-249-414-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	47 10K 560	5% 5% 5%	1/4W 1/4W 1/4W	\$101 \$102 \$103	1-554-879-11 1-571-243-11 1-571-240-11	SWITCH, SLIDE (AUDIO SWITCH, SLIDE (AUDIO SWITCH, ROTARY (OUT	O REC		
R960 R961 R962	1-249-401-11 1-249-429-11 1-249-414-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	47 10K 560	5% 5% 5%	1/4W 1/4W 1/4W	\$201 \$301 \$302	1-554-019-00 1-571-242-11 1-570-029-11	SWITCH, SLIDE (REMO SWITCH, PUSH (2 KEY SWITCH, PUSH (1 KEY	)(SUBS	ONIC	, MODE)
R963 R964 R965	1-215-394-00 1-249-429-11 1-249-429-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	75 10K 10K	5% 5% 5%	1/4W 1/4W 1/4W	\$303 \$601 \$602	1-570-029-11 1-554-303-21 1-554-303-21	SWITCH, PUSH (1 KEY (E77ESD)SWITCH, N SWITCH, KEY BOARD (	KEY BO	ARD (	
R966 R967 R968	1-215-394-00 1-249-429-11 1-249-429-11	(E77ESD)CARBON (E77ESD)CARBON (E77ESD)CARBON	75 10K 10K	5% 5% 5%	1/4W 1/4W 1/4W	\$603 \$604 \$605	1-554-303-21 1-554-303-21 1-554-303-21	SWITCH, KEY BOARD (I SWITCH, KEY BOARD (I SWITCH, KEY BOARD (I	TUNER)		

#### ELECTRICAL PARTS

Ref.No.	Part No.	Description	Ē
\$606 \$607 \$608	1-554-303-21 1-554-303-21 1-554-303-21		1
\$609 \$610 \$611	1-554-303-21 1-554-303-21 1-554-303-21	SWITCH, KEY BOARD (VIDEO 3) SWITCH, KEY BOARD (VIDEO 2) SWITCH, KEY BOARD (VIDEO 1)	1 *3
	1-554-303-21 1-554-303-21 1-554-303-21	SWITCH, KEY BOARD (ADAPTOR) (E77ESD)SWITCH, KEY BOARD (DAT) SWITCH, KEY BOARD (SOURCE DIRECT)	3
S616	1-554-303-21 1-571-241-11 1-570-046-21	SWITCH, KEY BOARD (MUTING -20dB) SWITCH, PUSH (1 KEY)(POWER) (AEP,UK,E)SWITCH, VOLTAGE CHANGE (VOLTAGE SELECTOR)	4
		(E77ESD)COIL (WITH CORE)	
T951 / T951 /	N. 1-449-019-11 N. 1-449-020-11	(US,Canadian)TRANSFORMER, POWER (AEP,G-AEP,UK,E)TRANSFORMER, POWER	
T952	<u> 1-449-014-11</u>	TRANSFORMER, POWER	
TB102	*1-508-880-00 *1-560-200-00 *1-560-200-00		
TB105	*1-560-200-00 *1-560-200-00 *1-560-200-00	BASE POST, MCD CONNECTOR 2P BASE POST, MCD CONNECTOR 2P BASE POST, MCD CONNECTOR 2P	
TB108	*1-560-200-00 *1-560-200-00 *1-560-200-00	BASE POST, MCD CONNECTOR 2P BASE POST, MCD CONNECTOR 2P BASE POST, MCD CONNECTOR 2P	
TB402 TB403	*1-535-115-00 *1-535-116-00 *1-535-116-00 *1-535-139-00	TERMINAL 3P	
	*1-535-140-00 *1-535-141-00	(US,Canadian,AEP,UK,E) BASE POST 19MM(10MM PITCH) 3P (G-AEP)BASE POST 19MM(10MM PITCH) 4P	
TB604	*1-535-115-00	(US,Canadian,G-AEP)TERMINAL 2P	
ТН701	1-800-200-00	(E77ESD)THERMISTOR S-3K	

X601 1-567-160-00 OSCILLATOR, CERAMIC (4.19MHz)

#### ACCESSORY & PACKING MATERIAL

rait NO.	Description .
1-463-901-11 1-463-902-11 1-463-953-11	(E77ES)COMMANDER, REMOTE (RM-177) (AEP,G-AEP,UK)COMMANDER, REMOTE (RM-177D) (US,Canadian)COMMANDER, REMOTE (RM-E7)
1-551-315-00 1-557-817-11	CORD, CONNECTION (RK-112) (E77ESD)CORD, CONNECTION
*3-697-712-01 3-703-450-01 3-769-377-11	SHEET, PROTECTION INSTRUCTION MANUAL, INSTRUCTION
4-922-201-01 4-922-201-11	(E77ES)INDIVIDUAL CARTON (E77ESD)INDIVIDUAL CARTON
4-922-202-01	CUSHION

The components identified by shading and mark A are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et une marque ▲ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.